



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

TRANSACTIONS
OF THE
AMERICAN ENTOMOLOGICAL SOCIETY.

VOLUME XXVIII.

DESCRIPTIONS OF SOME MUTILLA FROM BRAZIL.

BY E. T. CRESSON.

The species described in this paper were collected several years ago in various parts of Brazil by Mr. Herbert H. Smith, and by him placed in my hands for determination. Some of them will doubtless prove to be identical with species already described by Klug, Burmeister, Gerstæcker, Smith and others, as the descriptions given are in many cases too meagre for accurate identification, and a comparison with the types will be necessary in order to settle the matter. I have therefore given a tolerably full description of most of the species, some of which are amazingly alike in general appearance, while differing in characters that appear to be constant, but may, with a larger series of specimens, prove to be only varieties.

Owing to the great dissimilarity of the sexes, it is quite impossible to correlate them without a knowledge of their true relationship, and until this has been ascertained, it seems best to consider them as distinct species, and to treat them accordingly.

Mr. Smith has very kindly furnished me with the following interesting notes on the localities in which he collected, and which will amply explain the habitat given after the description of the species.

"The distribution of the Brazilian Mutillidæ is interesting because they seem to be almost confined to the more or less open lands called *campo*. This word requires an explanation.

"The country people distinguish various kinds of land by their vegetation; but, excluding the river bottoms, swamps and seashore, the whole of Brazil may be broadly divided into true forest and *campo*. The plants and animals of each vary to some extent,

according to latitude and situation; but everywhere the two are sharply defined, and the forest species are nearly all different from those of the campo. The forest is a thick growth of high trees, with a tangle of woody vines, so matted that a knife must be used continually in passing through it. Few of the trees have deciduous leaves; sunlight only reaches the ground here and there; the grasses, where they occur, are arboreal or climbing species; and instead of the ordinary herbaceous plants the ground is often covered with ferns.

"The campo land may be quite open, or with scattered low trees and clumps of bushes. Sometimes these are thick enough to form a kind of pseudo-forest; but even in such places the sunlight reaches the ground freely, and there is always a growth of herbs and grasses; no large, woody vines are seen, and one can walk or ride freely almost anywhere. The trees are gnarled and crooked, and most of them shed their leaves in the dry season; at that time the grass is burned off by the herdsmen. The impression is almost irresistible that this is an old, worn-out vegetation; a plant world in its decrepitude.

"Forest and campo are intermingled; generally the forest lines the banks of rivers and streams; little patches, often of only a few acres, are seen in damp hollows; and steep hillsides are often covered with it. Sometimes forest spreads over level ground, precisely similar in soil and character to the campo, and rising from it like a wall. Very old forest trees do not occur close to the campo; it is evident that the forest is gradually encroaching on the open land, young trees springing up in the shade of the old ones, so that the forest wall must advance very slowly.

"Campo land, almost exactly like that of the plateau, occurs at intervals on both sides of the lower Amazons. I believe, in fact, that the extent of the Amazonian forest has been overestimated. Travel in that region is almost confined to the rivers, and explorers, seeing only the forest-lined bank, jump to the conclusion that the whole region is like it. The Amazonian forests are more extensive, because they are favored by the heavy rain falls; but I have information from Indians and others which leads me to suppose that much of the land between the lower Amazonian tributaries is campo. If this view is correct, the campo extends—with little interruption—from Paraguay to the Amazons and beyond it to Guiana; apparently there is similar land beyond the Paraguay—in Bolivia.

"Von Ihering and others have recently called attention to the dual character of the Brazilian fauna. Long ago, I arrived at the conclusion that the campo fauna and flora constitute an older and to some extent decadent set, which is gradually being overrun by the forest. Many of the campo animals are older types, found in the Tertiary; I may mention the Armadilloes and Ostriches. The strange Coleopter, *Hypocephalus*, is a campo insect, and Le Conte* arrived at the conclusion that it is a very ancient and synthetic type. I might multiply such examples, but enough has been said to show the great interest of the subject.

"It is then a fact of peculiar significance that the Mutillidæ are almost exclusively campo insects; they are never common in extensive forest regions (e. g. the Brazilian coast range). Sometimes they are seen on open and dry forest roads, or in clearings; but in such cases they are evidently wanderers from the open lands. Possibly there are some true forest species, but if so I do not know them. The Mutillidæ are abundant all over the plateau, and in open places along the lower Amazons; probably the sandy soil is favorable to them. The females run about on the ground, rather slowly, and are conspicuous on account of their bright colors; they sting severely, but (as with the Pompilidæ) the inflammation soon subsides, leaving only a persistent numbness. It is the rarest thing to find males and females together; the males occur on the ground, sometimes on flowering plants; they fly heavily and slowly. The females are often found digging holes in the sand, and I have seen them carry small spiders, no doubt to provision the nests.

"A few *Mutilla* from Minas Geraes were given to me by my friend Sr. Carvalho, of Rio de Janeiro. All the others were collected by myself or my assistants.

"Following is a list of the localities; the name of the State is added in parenthesis:

"**Benevides** (Pará), 15 or 20 miles south of Pará, on low, sandy land like that near the city; forest with clearings and open roads, but there is campo land within a few miles. The specimens were collected along roads in sunny places.

"**Chapada** (Matto Grosso), is 25 miles northeast of Cuyabá, on the plateau, approximately 2500 ft. above the sea, but many of the insects were collected as low as 1500 ft. The land is partly sandy and

* On the Affinities of *Hypocephalus*, Trans. Am. Ent. Soc., v, 1876, pp. 209-218.

more or less open campo, interspersed with tracts of forest. Nearly all the Mutillidæ were collected on sandy campo land, whether the label states the fact or not.

“**Corumbá** (Matto Grosso), is on the west side of the River Paraguay. The land is a very dry, calcareous soil, with a scrubby growth full of cacti and other thorny plants. True forest is found some miles back at Piedra Blanca.

“**Mararú** (Pará), 6 miles south of Santarem, a clearing in the forest; soil sandy. There is campo land less than two miles away, and some of the Mutillidæ may have been collected on it.

“**Minas, Car.**—This label is placed on a number of specimens from Minas Geraes, which were given to me by Sr. Carvalho, of Rio de Janeiro.

“**Pará** (Pará), on the Pará River, properly the enlarged mouth of the Tocantins. The site of the city was originally covered with dense forest, but it is now more or less cleared for several miles around; soil sandy. True campo land occurs within twenty miles to the south.

“**Paracary** (Pará), on the north side of the Amazons, nearly opposite Santarem, on a lake which lies in the Amazonian flood-plain. The land back of the lake is sandy campo, very similar to that at Santarem and Chapada.

“**Piedra Blanca**, or in Portuguese, **Pedra Branca**, is 5 miles west of Corumbá, and just within the confines of Bolivia. The land here is heavy forest, with clearings; but it is quite close to the scrubby growth surrounding Corumbá.

“**Rio de Janeiro.**—In the region of the Brazilian Coast Range; the mountain sides were originally covered with forest, but there was more or less open and arid land near the seashore and among rocks.

“**San Salvador** (Pernambuco), a plantation 30 miles inland from the city of Pernambuco, and not over 500 ft. above sea-level; sandy soil with open forest.

“**Santarem** (Pará), on the River Tapajós, just above its mouth in the Amazon. The land immediately about the town is sandy campo; the forest limit is three or four miles south.

“**St. Catherina** (Santa Catherina).—The specimens so labelled were collected near the town of Santa Catherina, on an island of the same name, close to the coast. The island was originally covered with forest, but has been cleared near the town.

"Sao Joao do Monte Negro (Rio Grande do Sul), on the River Cahy, 40 miles north of Porto Alegre. Low land, forest, with numerous clearings. There are open lands two miles south, continuous with the pampas of Uruguay."

FEMALES.

The following summary of the more detailed table which follows, will assist in locating the species characterized therein :

- Abdomen crested or tuberculate at base of second segment.....Species 1-4.
 Abdomen not so crested or tuberculate.....2.
 2. Thorax more or less ferruginous.
 Eyes ovate, depressed.
 Basal segment of abdomen broadly dilated at apex.....Species 5-16.
 Basal segment quadrate, or nodose, or subnodose at apex....Species 17-20.
 Eyes rounded, very convex.....Species 21-22.
 Thorax black, generally with pale pubescent markings.....3.
 3. Second segment of abdomen with pale pubescent markings.....4.
 Second segment with yellow or red smooth or punctured spots.....5.
 Second segment with smooth yellow band at apex.....Species 87-88.
 Second segment with two smooth yellow stripes.....Species 89-91.
 4. Head unusually large.....Species 23-32.
 Head not unusually large.....Species 33-41.
 5. Second segment of abdomen with *two* red or yellow spots.....6.
 Second segment with *four* red or yellow spots.....7.
 6. Head large, broader than thorax.....Species 42-48.
 Head of usual size, not broader than thorax.....Species 49-61.
 7. Thorax prominently toothed laterally.....Species 62, 63, 77.
 Thorax not prominently toothed laterally.....8.
 8. Thorax black on anterior half, metathorax golden with central black stripe.
 Species 64.
 Thorax black, with central pale pubescent stripe.....Species 65.
 Thorax with two silvery pubescent stripes, sometimes entire, but generally more or less abbreviated anteriorly.....Species 66-76, 78-86.

This last division contains species (or in some cases possibly only varieties of species) which closely resemble each other in general ornamentation, and additional tables to assist in separating them, will be found further on under species Nos. 75 and 86.

Table of Species.

- Second segment of abdomen crested or tuberculate at base.....2.
 Second segment not crested or tuberculate.....5.
 2. Thorax more or less ferruginous or yellowish.....3.
 Thorax black.....4.

3. Honey-yellow; head yellowish; the tuberculated crests at base of second segment of abdomen prominent and black.....1. **denticulata** Sm.
Head and abdomen, except first segment, black; base of second segment with two groups of tubercles divided by a short longitudinal white pubescent line.....2. **cornigera** Cress.
4. Second segment of abdomen at base above with two elevated, oblique, dented crests; this segment honey-yellow above with a black X-shaped mark covering the crests and confluent posteriorly on apical margin; metathorax densely clothed with pale golden pubescence, lateral margins with small short teeth.....3. **decussata** Cress.
Second segment above black, with a triangular patch of depressed tubercles on each side at base, a ferruginous spot between these and a large rounded spot of same color on each side posteriorly, separated by a slender black line; metathorax black, the lateral margins with large acute teeth, directed backward; spine at tip of posterior tibiæ long and thickened at base.....4. **iracunda** Cress.
5. Thorax more or less ferruginous or yellowish.....6.
Thorax black, ornamented more or less with pale pubescence, rarely entirely black20.
6. First segment of abdomen broadly dilated at apex and conforming in outline with base of second segment; eyes ovate, depressed, distinctly netted..7.
First segment narrow, subquadrate, not or but slightly dilated at apex...15.
7. Thorax broad, subquadrate, not narrowed medially, the disk only red; abdomen black, with two silvery pubescent stripes, interrupted at apex of second segment by a silvery band.....5. **seducta** Cress.
Thorax rather narrow, elongate, subcompressed, slightly narrowed medially, almost entirely ferruginous.....8.
Thorax short, fiddle-shaped, being more or less deeply constricted laterally before metathorax; eyes rounded, very convex, polished.....9.
8. Abdomen black above, with two slender silvery pubescent stripes, interrupted by a narrow silvery band at apex of second segment.
6. **phalerata** Klug.
Abdomen with two silvery stripes, each of which is dilated into a spot at apex of second segment, before which the stripes are narrowed and subinterrupted; first segment, venter and base of antennæ ferruginous.
7. **exclamationis** Cress.
9. Abdomen black above, with a central silvery pubescent stripe from base to apex, and a triangular silvery spot on each side of second segment.
8. **dividua** Cress.
Abdomen black above, with a more or less distinct silvery band on second segment; head and legs black or brown; thorax entirely red.....10.
Abdomen with second segment above black or fuscous, with two pale spots..11.
10. Head above with an arcuate silvery pubescent band; apical margin of abdominal segments fringed with silvery pubescence; no red color on second segment.....9. **credula** Cress.
Head above entirely black, the pale band on second segment of abdomen narrowed medially and red beneath the pale pubescence; a broad band of pale golden or silvery pubescence on segments 3-5.
10. **crepera** Cress.

11. Head black, with black pubescence.....12.
 Head black, with golden pubescence; thorax ferruginous, with two fuscous spots on anterior margin of mesothorax; legs rufo-testaceous; the spots on second abdominal segment round, reddish and covered with silvery pubescence; a large silvery pubescent spot on middle of remaining segments; basal segment ferruginous...11. **paulula** Cress.
 Head above honey-yellow or testaceous.....14.
12. Second segment of abdomen above with two large broad lunate testaceous spots.....13.
 Second segment with two slender lunate testaceous spots or lines, dilated posteriorly; thorax honey-yellow, with anterior margin of mesothorax black; legs honey-yellow varied with fuscous; head black, with indistinct pale spot between eyes; antennæ fusco-testaceous.
 12. **parata** Cress.
13. Antennæ, collar and middle of anterior margin of mesothorax black; the two spines on each side of thorax before constriction unequal, the anterior one much larger and directed backward; form stout.
 13. **bilunata** Burm.
 Antennæ at base, collar and thorax entirely, pale honey-yellow; the two spines on each side of thorax before constriction small and equal in length.....14. **pergrata** Cress.
14. Second segment of abdomen above black, with two broad sublunate testaceous spots.....15. **pacata** Cress.
 Second segment above black, with two oblong ovate pale golden spots.
 16. **tantula** Cress.
15. Second segment of abdomen above black, with pubescent markings.....16.
 Second segment above black, with two reddish or yellowish punctured spots..... 19.
16. Head black, with black pubescence; thorax, legs, first segment of abdomen and venter fulvo-testaceous; two patches of thin pale pubescence near base of second segment, its lateral and apical margins and remaining segments with golden pubescence.....17. **Januarii** Dalla Torre.
 Head rather densely clothed with golden pubescence.....17.
17. Abdomen above black, with two silvery stripes on second and following segments; thorax entirely dull red; legs fuscous...18. **invitata** Cress.
 Abdomen above clothed more or less with dense appressed golden-ochraceous pubescence; second segment black, varied with golden-ochraceous, the basal middle and disk always black; thorax with two more or less distinct blackish stripes.....18.
18. Third and following segments of abdomen broadly blackish on each side.
 19. **benevola** Cress.
 Third and following segments covered entirely with golden-ochraceous pubescence, except a reddish brown spot on apical middle of segments 2-5; small species.....20. **beatula** Cress.
19. Abdomen with the two spots on second segment oblong and subapical; head with golden pubescence.....21. **integella** Cress.
 Abdomen with the two spots broad, elongate and reaching the basal margin of the segment, where it is narrowed; head with silvery pubescence.
 22. **verecunda** Cress.

20. Second segment of abdomen black, ornamented with silvery, golden or cupreous pubescent markings.....21.
 Second segment black, with two or four smooth or punctured and shining or opaque spots35.
 Second segment black, with a narrow, smooth, polished yellow band at apex74.
 Second segment black, with two smooth, polished yellow stripes.....75.
21. Head unusually large, quadrate or subquadrate, as large or larger than the thorax and broader; space behind eyes very long, posterior angles of head more or less acutely carinate.....22.
 Head not unusually large, not as large as thorax and not or rarely broader...29.
22. Head toothed beneath.....24.
 Head not toothed beneath.....23.
23. Head black, with pale pubescent stripe behind each eye; antennæ and legs black; second segment of abdomen above with a median pale golden stripe, continued on first segment, but abbreviated posteriorly, and a transverse spot of same color on each side behind middle; two entire silvery pubescent stripes on thorax; form robust..23. **harpyia** Gerst.
 Head golden pubescent; antennæ, first segment of abdomen and legs ferruginous; first and second segments broadly pale golden on apical middle, continued narrowly on lateral margin; two abbreviated silvery stripes on thorax; form not robust.....24. **vera** Cress.
24. Second segment of abdomen above with a discal spot of cupreous, golden or silvery pubescence25.
 Second segment with a pale ochraceous spot on apical middle, continued in a slender stripe to apex of abdomen; first segment with a discal ochraceous spot28.
25. Head entirely black above.....26.
 Head black, with two silvery or golden pubescent spots or lines behind the eyes.....27.
26. Discal spot on second segment of abdomen above rounded and cupreous; metathorax with two pale golden pubescent stripes, extending a short distance on mesothorax; cheeks beneath with a long acute tooth on each side.....25. **cephalotes** Swed.
 Discal spot on second segment rounded and golden cupreous; two spots on mesothorax, two on metathorax at base, and two indistinct spots on vertex, pale golden pubescent; head beneath posteriorly with an acute tooth, the posterior margin above acutely carinate.
26. **specularis** Gerst.
 Discal spot on second segment much smaller, oblong-ovate and golden; thorax above entirely black; head beneath with two long, widely separated, subacute teeth, and a small tooth on cheeks beneath; posterior angles of cheeks produced into a sharply compressed tooth.
27. **spiniceps** Cress.
27. Discal spot on second segment longitudinally ovate and cupreous; sides of third segment and spot behind each eye, silvery pubescent; head beneath with two median approximate teeth, and a shorter tooth on cheeks beneath; clypeus with a long narrow, median, flattened projection, bidentate at tip; posterior angles of head, when viewed from above, acute.....28. **centromaculata** Cress.

- Discal spot on second segment subtriangular and golden; the apical segments with two silvery stripes; cheeks armed beneath with a stout tooth; posterior angles of head rounded, a silvery pubescent stripe behind each eye.....29. **Smithii** Cress.
- Discal spot on second segment small, longitudinal and silvery; spot on each side of head behind eyes, and spot on each side of third abdominal segment, silvery pubescent; head beneath with two long acute divergent teeth, and a short tooth on cheeks beneath; posterior angles of cheeks carinate and produced into a prominent, compressed, obtuse tooth.....30. **armata** Klug.
28. Thorax above with a pale ochraceous pubescent median stripe, sometimes interrupted into spots, and a slender pale stripe on each side of metathorax; head with an oblique pale line behind each eye; a stripe on lateral margin of second abdominal segment, not reaching apex, and sides of remaining segments, white or pale ochraceous; a pale spot on apical middle of second segment, dilated and more or less triangular; cheeks toothed beneath; form robust.
31. **bucephala** Perty.
- Thorax above with sides only—mesothorax narrowly, and metathorax broadly—silvery pubescent; second abdominal segment with a triangular silvery spot on each side at apex; head with a golden stripe behind each eye (sometimes entirely black or golden); cheeks with a small tooth beneath near base of mandibles; frontal tubercles very prominent.... 32. **victura** Cress.
29. Eyes small, round, convex, polished.....30.
- Eyes ovate, depressed, distinctly netted.....33.
30. Head quadrate, distance behind eyes long; second segment of abdomen with two narrow, elongate spots of pale ochraceous pubescence on disk; sides of first, lateral margin of second, sides of third and following segments, also two stripes on vertex and on metathorax, also pale ochraceous or silvery pubescent.....33. **gigantea** Perty.
- Head small, transverse, distance between the eyes short.....31.
31. Mesothorax twice notched or constricted on each side, with a prominent obtuse tooth between the constrictions; anterior angles of thorax with a short obtuse polished tubercle; head, thorax and abdomen variously ornamented with pale ochraceous or white pubescence.
34. **cerbera** Klug.
- Mesothorax not constricted laterally, unarmed.....32.
32. Thorax with two entire pale pubescent stripes...36. **Gazagnairei** André.
- Thorax with only one pale stripe.....35. **centrovittata** Cress.
- Thorax without pale stripes except on sides of metathorax, where they are silvery; second segment of abdomen with two long, narrow, oblique, silvery white spots of apical half; head silvery white above.
37. **bifurca** Klug.
33. First segment of abdomen broadly dilated at apex, and conforming in outline with base of second segment; head transverse, scarcely broader than thorax, which is short, broad, subquadrate, and not constricted laterally; abdomen black, with a broad, central bright golden or cupreous pubescent stripe on segments 1-3...38. **auroplaga** Cress.

- First segment small, quadrate, scarcely dilated at apex; head transversely subquadrate when viewed from above, broader than thorax, which is long, narrow, subcompressed laterally34.
34. Metathorax above with a median silvery pubescent stripe; head above with a transversely triangular silvery spot; second segment of abdomen with two small spots on basal middle, and a band on apical margin, interrupted on middle, silvery pubescent.....39. **calvaria** Cress.
- Metathorax with a silvery stripe on each side; face and vertex ochraceous; second segment of abdomen with a broad band at apex, interrupted on middle, and two rows of spots on segments 3-5, silvery pubescent.
40. **felix** Cress.
- Metathorax entirely silvery, except a black stripe on disk; head entirely black; two large round spots on base of second abdominal segment, and two square spots on apex of segments 2-5, dull golden or cupreous pubescent.....41. **crusa** Cress.
35. Second segment of abdomen with two round or ovate yellow or red spots..36.
- Second segment with four spots, those at base generally smaller and elongate, sometimes reduced to mere dots or obsolete.....53.
36. Head large, subquadrate, broader than thorax37.
- Head of usual size, not broader than thorax.....43.
37. Front of head projecting over the face like an overshoot, the lateral angles of projection prominently toothed; the two ovate reddish spots on second segment opaque.....42. **projectifrons** Cress.
- Front of head not projecting, unarmed.....38.
38. First segment of abdomen broadly dilated at apex, and conforming in outline with base of second segment39.
- First segment not conforming in outline with base of second, but more or less constricted at apex, or small and subquadrate.....42.
39. Pubescence above short and generally velvety black40.
- Pubescence above long and entirely brownish ochraceous, depressed, almost hiding the silvery stripes on each side of head and thorax, as well as the two small, rounded, shining, yellow spots on second abdominal segment.....46. **bombycina** Cress.
40. Segments of abdomen beyond the second with a median stripe of silvery pubescence.....41.
- Segments beyond the second with the sides silvery and the middle black; stripe behind each eye, and on sides of thorax above not reaching anterior margin, silvery pubescent; the two rounded, yellowish spots on second segment punctured; thorax slightly longer than broad.
44. **turnalis** Cress.
41. Spots on second segment of abdomen small, round, yellowish; silvery pubescent stripes on thorax entire..43. **araxa** Cress.
- Spots on second segment large, longitudinally ovate, and covered with dense appressed bright cupreous pubescence; the silvery stripes on thorax abbreviated anteriorly; size small45. **curiosa** Cress.
42. First segment of abdomen broad and constricted, but not toothed, at apex; head unusually large, depressed, and when viewed from above subtriangular, being broader in front, very long behind eyes, with posterior angles acute; stripe behind eyes and on each side of thorax, spot on disk of first segment and stripe on middle of apical segments, silvery

pubescent; sides of metathorax toothed: the two spots on second segment very large, and nearly confluent, blood-red, opaque.

47. **carinigena** Cress.

First segment constricted to a band at apex, before which is a transverse row of large acute teeth; head large, subglobose, posterior angles rounded; thorax narrowed posteriorly, sides of thorax not toothed; the two spots on second segment small, round, red, smooth and polished.

48. **Pertyi** Dalla Torre.

43. Second segment of abdomen with longitudinal or oblique interrupted rows of carinae on upper surface; lateral margin of thorax more or less toothed; form robust.....44.

Second segment above more or less densely and deeply punctured; lateral margin of thorax unarmed; form more slender.....49.

44. Apex of abdomen with two silvery pubescent stripes.....45.

Apex of abdomen silvery or golden, with a black median stripe.....47.

45. The two yellowish spots on second segment rounded46.

The two yellowish spots narrow transverse; the two slender silvery stripes on thorax above entire or nearly so; form large, robust.

51. **infausta** Cress.

46. Head and thorax black.....49. **stygia** Smith.

Head with spot behind each eye, and two stripes on metathorax extending for a short distance on mesothorax, silvery pubescent; the two spots on second segment yellow or orange.....50. **myops** Burm.

47. The two spots on second segment oblique; two silvery pubescent stripes on head, thorax and basal segment of abdomen52. **bellula** Cress.

The two spots rounded or ovate.....48.

48. The two spots on second segment rather small and rounded, yellow; head with silvery pubescent spot behind each eye; spot on each side of mesothorax posteriorly, and two stripes on metathorax, silvery pubescent53. **larvata** Klug.

The two spots on second segment very large, ovate, orange-red; head golden between eyes and on face; metathorax golden, with a black median stripe54. **spinosa** Swed.

49. Metathorax above with a short, smooth, transverse carina on disk; body and legs with glittering pubescence, giving the insect a frosty appearance; the two spots on second segment very large, pale yellow, margined with brown, densely punctured; apical segments silvery pubescent; small and rather slender species.....55. **frigidula** Cress.

Metathorax without carina on disk above.....50.

50. The two spots on second segment very large, elongate, bright red, reaching anterior margin of segment51.

The spots on second segment longitudinally ovate, pale yellow; head and thorax entirely black; apical segments with a short median, silvery stripe56. **bellica** Cress.

The spots on second segment rounded, pale yellow; thorax with two silvery pubescent stripes, and apical segments with a median silvery stripe.

57. **diophthalma** Klug.

The spots on second segment more or less transverse or oblique; thorax with two silvery or pale golden pubescent stripes.....52.

51. Abdomen with a spot of silvery pubescence on disk of first segment and also on apical middle of second; apex of abdomen with pale glittering pubescence; head golden pubescent58. **bellicosa** Cress.
 Abdomen with apical margin of first segment, and all the segments beyond the second, silvery, with a central black stripe, continuous with that on second segment; head silvery pubescent with a reddish-brown spot on vertex59. **bellifera** Cress.
52. Apex of abdomen with a median silvery pubescent spot on segments 2-5; the two spots on second segment more or less oblique, yellow. (See § 59).
 60. **latevittata** Cress.
 Apex of abdomen with a median silvery spot on segments 4-5 only; the two spots on second segment transversely quadrate, not oblique, generally blood-red. (See § 58).....61. **demissa** Cress.
53. Thorax laterally, at base of mesothorax, with a large, stout obtuse tooth, between which and the prominent tuberculiform metathoracic spiracles is a deep notch.....54.
 Thorax not toothed laterally56.
54. The spots on second abdominal segment large, rounded or quadrate.....55.
 The spots on second segment narrow, linear, those at base longitudinal, those near apex transverse and only slightly separated medially; thorax with two slender silvery pubescent stripes not reaching prothorax.
 77. **solemnis** Cress.
55. Entirely black, except the four dull red shining spots on second abdominal segment and a slender silvery pubescent stripe on segments 4-5.
 62. **atripes** Smith.
 Head and anterior half of thorax black, the posterior half golden pubescent, except a black stripe on middle of metathorax; the four spots on second segment large, irregular in shape, orange-yellow, the basal spots smaller and quadrate.....63. **4-notata** Klug.
56. Thorax black, posterior margin of mesothorax, and metathorax except a median black stripe, golden pubescent, as well as spot on apical sides of segments 2 and 3, and all of segments 4 and 5; the spots on second segment orange red, the subapical ones very large, irregular, those at base much smaller; head entirely black.....64. **inermis** Klug.
 Thorax with an entire central stripe of pale ochraceous pubescence; second segment above with two large, rounded, deeply punctured, shining, blood-red spots, and two oblique smaller spots of same color at base nearly confluent with the larger ones; segments 4 and 5 with a square discal spot of pale ochraceous pubescence.
 65. **dorsovittata** Cress.
 Thorax with two silvery or golden stripes, generally confined to metathorax and base of mesothorax; apex of abdomen with a central silvery stripe, occasionally abbreviated to one or two spots57.
57. Head clothed with silvery or griseous pubescence; thoracic vittæ broad and entire58.
 Head above with a median spot of golden or silvery pubescence.....60.
 Head above with a transverse or subarcuate band of silvery pubescence..62.
 Head above with two silvery or golden pubescent suborbital stripes.....65.
 Head above entirely black.....66.

58. A spot of silvery pubescence on apical middle of abdominal segments 4 and 5 only; the two red basal spots on second segment very small and often wanting. (See § 52).....61. **demissa** Cress.
 A spot of silvery pubescence on apical middle of segments 2-5.....59.
59. The two smooth spots on posterior part of second segment of abdomen small, yellow, generally transverse, often oblique; the two basal spots often very small, and sometimes wanting. (See § 52).
 60. **latevittata** Cress.
 The two smooth spots large, rounded, blood-red, sometimes almost confluent with the two basal spots, which vary in size, but never minute.
 66. **quadrum** Klug.
60. Thoracic vittæ fulvous or dark golden pubescent, almost entire; spot on vertex generally small and sometimes wanting. (See § 67).
 67. **chapada** Cress.
 Thoracic vittæ pale golden, silvery or griseous, confined to metathorax, or very slightly extended on mesothorax posteriorly61.
61. The silvery pubescent patch on flanks of metathorax broader, extending forward on pleura; the two spots on posterior part of second abdominal segment subquadrate or rounded.....68. **erixa** Cress.
 The silvery patch narrow and confined to flanks of metathorax; the two spots on posterior part of second segment more or less transverse.
 70. **vagabunda** Smith.
62. The two smooth, pale spots on posterior part of second segment square or rounded63.
 The two smooth spots narrow and very transverse.....64.
63. A spot of silvery pubescence on apical middle of abdominal segments 4 and 5 only.....69. **compar** André.
 A spot of silvery pubescence on apical middle of segments 2-5.
 71. **spectabilis** Gerst.
64. Thoracic vittæ golden or fulvous pubescent, those on mesothorax broad, curved and attenuated anteriorly, almost or quite entire; a silvery-white spot on extreme side of abdominal segments 2 and 3 at apex; ventral segments 2 and 3 banded at apex with pale pubescence.
 78. **æmulata** Cress.
 Thoracic vittæ narrow and silvery, extended anteriorly on base of mesothorax; a silvery white spot on extreme side of segments 2-4 at apex; ventral segments 2-4 banded at apex with pale pubescence.
76. **indica** Linn.
65. Thoracic vittæ not extended forward on prothorax.
 Thorax notched on each side at about the middle.
 Mesothoracic vittæ broad, oblique and disconnected at base from the slender metathoracic stripes.....74. **duplicata** Gerst.
 Mesothoracic vittæ slender, straight and continuous with the metathoracic stripes.....72. **bivittata** Gerst.
 Thorax not notched laterally73. **estrella** Cress.
 Thoracic vittæ entire; thorax not notched laterally.....75. **ocellaris** Klug.
66. Head subquadrate, broader than thorax79. **vivata** Cress.
 Head not broader than thorax, generally narrow.....67.
67. Thoracic vittæ fulvous or dark golden, almost entire; head above often with

- a more or less distinct tuft or line of dark golden pubescence. (See § 60).....67. **chapada** Cress.
- Thoracic vittæ silvery or griseous.....68.
68. Thoracic vittæ interrupted on mesothorax posteriorly; the smooth spots on posterior part of second segment of abdomen transversely subquadrate; calcaria pale.....80. **graphica** Gerst.
- Thoracic vittæ not interrupted.....69.
69. Thorax more or less deeply notched on each side of mesothorax posteriorly, and immediately in front of metathoracic tubercles.....70.
- Thorax not or very slightly notched on each side of mesothorax posteriorly; calcaria pale.....73.
70. Thoracic vittæ extending beyond base of prothorax, sometimes nearly reaching its anterior margin.....71.
- Thoracic vittæ much abbreviated anteriorly, not extending beyond base of prothorax.....72.
71. Calcaria black or fuscous; the two smooth spots on posterior part of second abdominal segment oblique.....81. **manca** Cress.
- Calcaria pale; the two smooth spots subtransversely quadrate.
84. **borba** Cress.
72. Calcaria black or fuscous; the two smooth spots on posterior part of second abdominal segment subquadrate, not oblique.....82. **sodalis** Cress.
- Calcaria pale; the two smooth spots more or less oblique, pyriform.
83. **optata** Cress.
73. Second abdominal segment with a silvery pubescent spot on apical middle, the two smooth spots at base ovate; pubescence of legs pale.
86. **auxiliaris** Cress.
- Second segment without silvery spot on apical middle, the two smooth spots at base long, sublinear; pubescence of legs, at least on outer side of the four posterior tibiæ and tarsi, mostly black.....85. **juvenalis** Gerst.
74. Thorax above with two broad, almost entire, reddish-brown pubescent stripes; two narrow, smooth, longitudinal, yellow spots at base of second abdominal segment; calcaria black.....87. **unimarginata** Cress.
- Thorax above with two narrow silvery pubescent stripes, generally no smooth spots at base of second segment; calcaria pale.....88. **mundula** Cress.
75. The two stripes on second segment of abdomen straight or nearly so.....76.
- The two stripes on second segment curved outwardly on posterior half; thorax with two almost entire silvery pubescent stripes; calcaria pale.
89. **Andrei** Cress.
76. Thorax entirely black; calcaria black or fuscous.....90. **rectilineata** André.
- Metathorax with two slender silvery pubescent stripes, and a broad silvery pubescent patch on flanks; calcaria pale.....91. **ipanema** Cress.

NOTE.—The types of all the new species described in this paper are in the Carnegie Museum, Pittsburgh, Pa.

1. **M. denticulata** Smith, Brit. Mus. Cat. Hym, iii, p. 48.—♀.—Length 7–8 mm.—Head large, transversely subquadrate, scarcely narrowed posteriorly, broader than thorax; eyes rounded, very convex, smooth, polished; thorax short,

fiddle-shaped, broad in front, constricted laterally at base of metathorax, the anterior angles acutely carinate; two short teeth on each side near base of mesothorax; the stigmatic tubercles at base of metathorax prominent and white; metathorax broad, depressed, lateral margin with five long acute teeth; first segment of abdomen dilated posteriorly, the apical margin slightly constricted; second segment densely sculptured, and on each side at base above a prominent longitudinal dentated crest, and a short longitudinal carina on each extreme side; apical segment convex, smooth and shining.

Honey-yellow, with pale pubescence more or less mixed with blackish; head more or less varied with yellowish; thorax ferruginous, posterior margin of prothorax, a spot on its middle and a spot on base of metathorax, sometimes continued narrowly to apex, and sometimes extended forward on mesothorax, black or fuscous; legs entirely honey-yellow, with pale pubescence; calcaria white; second segment of abdomen more or less yellowish, the crests, and sometimes a stain on sides and lateral apical margin of the segment, black or fuscous.

Santarem. Easily recognized by the pale color, and the two prominent black dentated crests on base of second segment of abdomen.

This is doubtless *denticulata* Smith, although the punctuation is fine, and the denticulated tubercles or crests on second abdominal segment are prominently black; the teeth at sides of metathorax are long, slender and acute.

2. **M. cornigera** ♀.—Length 6.5 mm.—Small, rather slender; head not broader than thorax, subquadrate, depressed, rounded posteriorly and prolonged behind eyes, which are small, rounded, not very convex, polished; thorax ovate, rounded above, slightly narrowed in front, and rapidly so behind, not constricted, the anterior angles tuberculate; metathorax subcompressed, sides not dentate; abdomen ovate, first segment broad posteriorly, sessile with base of second, which is very densely punctured, and on each side at base a group of five or six prominent tubercles.

Black; antennæ, thorax, most of legs and first segment of abdomen, ferruginous; tibiæ, apical segment of abdomen above and venter fuscous; a short stripe at base of second segment above between the groups of tubercles, a narrow band on apical margin, and a spot on disk of segments 3-5, of silvery white pubescence; calcaria pale; apex of abdomen with yellowish pubescence, the ventral segments fringed at apex with white pubescence.

Chapada. One specimen (May). Easily recognized by the tuberculate base of second abdominal segment.

3. **M. decussata** ♀.—Length 10 mm.—Head subquadrate, broader than thorax, slightly narrowed and extending a considerable distance behind the eyes, which are rounded, very convex and polished; cheeks carinate; thorax ovate, not constricted laterally, anterior angles carinate; metathorax short, gradually narrowed posteriorly, the lateral margin with a row of short acute teeth; legs slender; abdomen ovate, first segment nodose, second segment densely punctured.

tured, and on each side of disk at base a crest of about six erect obtuse, compressed teeth.

Head, pro- and mesothorax black, with erect black hair; mandibles, base of antennæ, and legs fuscous; metathorax and pleura covered with a fine dense pale golden sericeous pile, and clothed above with long pale erect hair; calcaria white; abdomen at base and sides with long pale erect hair, the second segment, when viewed from above, honey-yellow, with a black X-shaped mark covering the crests and confluent posteriorly on apical margin; third and following segments densely pale golden sericeous, and clothed with erect, pale hair; venter fuscous, with pale glittering pubescence.

Rio de Janeiro. One specimen taken in October. Easily recognized by the crested second segment of the abdomen having a black X-shaped mark.

4. **M. iracunda** ♀.—Length 8 mm.—Head and thorax above densely, coarsely and confluent punctured; head transverse, scarcely broader than thorax, eyes rounded, very prominent, almost globose, smooth and polished; thorax fiddle-shaped; mesothorax with three teeth on each side, one at anterior angle and two near posterior margin; metathorax with four or five acute teeth on lateral margin, the second one large and directed posteriorly; the spine at tip of posterior tibiæ long, porrect, thick at base and abruptly slender at apex; abdomen ovate, about as long as head and thorax together, basal segment broad, depressed, apical margin subconstricted, band-like, with a transverse, subapical row of tubercles or teeth; second segment depressed, and on each side the surface is obliquely elevated, crest-like, covered with subdepressed tubercles, all pointing backward; on each side behind the crest the surface is broadly depressed and densely punctured.

Black, with erect black hair, pale on face and silvery on cheeks; sides of thorax silvery sericeous; the stigmatic tubercles at base of metathorax ferruginous; basal segment of abdomen with silvery hair, a few long black hairs near apical middle, the depressed apical margin silvery; the depressed surface of second segment above ferruginous, opaque, arranged in three large spots, that on basal middle being smallest and subcordate, the other two very large and separated on disk by a narrow black line; third and following segments silvery sericeous; beneath, the second segment is shining, with rather large sparse punctures; calcaria pale.

Santarem. One specimen. A very distinct species, easily recognized by the color and sculpture of the second abdominal segment, which is tuberculate and having three large, opaque, depressed, ferruginous spots.

5. **M. seducta** ♀.—Length 10 mm.—Robust; head transverse, as broad as the thorax, densely and confluent punctured; eyes large, ovate, depressed, distinctly netted; thorax quadrate, rather longer than broad, sides parallel, not narrowed medially, but somewhat sinuate, unarmed, above longitudinally rugose; posterior face of metathorax broadly but not deeply concave, shining, lateral margin serrate; flanks of thorax more or less excavated, smooth, shining and pale sericeous; abdomen broadly ovate, first segment very broad, flattened, sessile

with base of second segment and conforming in outline therewith; apical segment above broad, flat, opaque, longitudinally aciculate.

Black; occiput, cheeks, face beneath antennæ and scape clothed with griseous pubescence; vertex above with two ill-defined spots of pale pubescence; thorax ferruginous above, margined all around with black; legs black, with pale glittering pubescence, that on tibiæ and tarsi golden in certain lights, calcaria whitish; abdomen with short appressed black pubescence on base and sides, mixed with paler hairs; apical sides of first segment, an undulated band, slightly interrupted medially, on apex of second segment, and two stripes beginning at base of second segment and extending to apex of fifth segment, all of silvery pubescence, the stripes on second segment subinterrupted before reaching the band at apex; venter black, the segments fringed at apex with long pale pubescence.

Chapada. One specimen taken in November.

This species is more robust than *lineola* Fabr., with the thorax broader, subquadrate and sides parallel, lateral margin of metathorax serrate, the first abdominal segment broader, and second segment differently ornamented. Compared with *phalerata* this species is broader and stouter, and the thorax shorter and more quadrate.

6. **M. phalerata** Klug (Nova Acta Cæs. Nat. Curios., x, 308, pl. xxii, fig. 3).—♀.—Length 8.5 mm.—Head and thorax deeply, closely and confluent punctured, the former subtransverse, slightly broader than thorax; eyes rather large, ovate, flattened and distinctly netted; thorax elongate, at least twice longer than broad, more or less narrowed towards the middle from both ends; metathorax obliquely truncate, the lateral margin with several small acute teeth; pleura impunctate and pale sericeous; abdomen ovate, as long as head and thorax combined; first segment broad, depressed, gradually dilated posteriorly and sessile with base of second segment; apical segment above finely longitudinally aciculate, or alutaceous.

Black; cheeks, occiput, face and scape of antennæ clothed with rather long griseous pubescence; vertex with a very short pale golden pile, more obvious in certain lights, otherwise the pubescence is fuscous; middle of mandibles, tubercles at base of antennæ and base of flagellum more or less, rufo-testaceous; thorax ferruginous, sparsely pubescent, sometimes an elongate black spot on each side of mesothorax posteriorly; legs black, rather thickly clothed with pale glittering pubescence, tarsi rufo-testaceous, calcaria pale; abdomen above with short appressed black pubescence, that on base and sides long, thin and pale; apical margin of first and second segments narrowly, and two narrow stripes extending from base of second segment to the apical segment, of silvery ochraceous pile, sometimes interrupted into spots on segments 3-5; venter piceous or rufo-piceous, the segments fringed at apex with griseous pubescence.

Chapada; Rio de Janeiro. This seems to accord tolerably well with Klug's description and figure.

7. **M. exclamationis** ♀.—Length 8.5 mm.—Form slender; head subtransverse, a little broader than thorax, deeply and confluent punctured; eyes

rather large, ovate, flatly convex, distinctly netted; thorax elongate, laterally compressed, slightly narrowed medially, coarsely confluent punctured above; metathorax obliquely truncate behind, the lateral apical margins serrate; flanks of thorax excavated and shining; abdomen ovate, first segment not very broad, but gradually widened behind and sessile with base of second segment; apical segment convex, smooth and shining.

Head black, occiput, cheeks and face beneath antennæ clothed with pale glittering pubescence; top of vertex generally with two pale golden spots; mandibles more or less, often the basal half of antennæ, including the two tubercles at base, and the thorax ferruginous; legs vary from black to ferruginous, clothed with pale pubescence, calcaria whitish; abdomen black, clothed above with short black pubescence, thinly interspersed with longer hairs, which are pale at base and sides of abdomen; first segment ferruginous, with a spot of ochraceous pubescence on lateral apical margin, remaining segments with two silvery-ochraceous stripes, narrowed and subinterrupted before reaching apex of second segment, where it forms a triangular spot, occasionally these stripes are interrupted into spots, except on base of second segment, where they are always entire, the stripes on this segment resembling exclamation points (! !); ventral segments fringed at apex with pale pubescence, the second segment always ferruginous, as is also occasionally the whole of venter and sides of dorsal segments.

Chapada. Closely allied to *lineola*, but the apical margin of second abdominal segment is not banded, the spots on each side showing no disposition to become confluent. Specimens will doubtless occur with the thorax, legs and abdomen ferruginous and only the head black.

This may be *bilineipunctata* Spin.

8. **M. dividua** ♀.—Length 8.5 mm.—Closely confluent punctured; head quadrate, slightly broader than thorax, not narrowed behind eyes, posterior angles rounded, posterior margin of cheeks carinate; eyes rounded, convex, smooth and polished; thorax short, broad, fiddle-shaped, anterior angles sharp, acutely toothed on each side before the middle; metathorax rounded above, abruptly declivous behind, lateral margins dentate, flanks deeply excavated, smooth and shining; abdomen ovate, first segment broad at apex, gradually widened posteriorly, sessile with and conforming in outline with base of second segment; venter shining, deeply and rather sparsely punctured.

Head velvety-black, mandibles, except tips, ferruginous; an oblique spot behind each eye and the cheeks silvery pubescent; thorax entirely ferruginous, the pubescence pale, except above, where it is mixed with black, a patch of silvery pile on lateral excavation; legs brown, with pale glittering hair; calcaria pale; abdomen velvety brown-black, the pubescence at base, sides and apex pale; a narrow median stripe extending from middle of first segment to apex of fifth, a triangular spot on sides of second segment and the lateral apical margin of segments 2-5, all silvery pubescent; venter ferruginous, with pale pubescence.

Chapada (May and November). Two specimens. Separated at once from all the other species by the narrow central silvery stripe on entire length of the abdomen to apical segment.

This may be *Gounellei* André, but no mention is made in the description of the rather large triangular silvery mark on sides of second abdominal segment, and the median stripe is not interrupted.

9. **M. credula** ♀.—Length 8 mm.—Densely confluent punctured; head transversely quadrate, broader than thorax, scarcely narrowed behind eyes, posterior angles rounded; eyes round, convex, smooth and polished; thorax short, broad, fiddle-shaped, lateral margins dentate; metathorax rounded above, abruptly declivous behind, flanks deeply excavated, smooth and polished; abdomen ovate, about as long as head and thorax together, first segment broad at apex, gradually widened posteriorly and conforming in outline with base of second segment; apical segment flattened at apex and minutely granulate; venter shining, closely punctured.

Head black, opaque; cheeks and an arcuate band on head above, silvery in certain lights; mandibles except tips, scape of antennæ and thorax entirely, ferruginous; legs brown, with pale pubescence; calcaria pale; abdomen black, opaque, apical margin of segments above and beneath fringed with silvery pubescence; a rather broad silvery pubescent band across middle of second segment above; first segment beneath ferruginous.

Santarem (November). One specimen.

10. **M. crepera** ♀.—Length 8 mm.—Densely confluent punctured; head not much extended behind eyes, rounded; eyes unusually large, round, convex, smooth and polished; thorax fiddle-shaped, with a sharp prominent erect tooth on each side at base of metathorax, which latter is rounded above, abruptly declivous behind, lateral margins denticulate, the flanks deeply excavated, smooth and shining; abdomen oblong-ovate, about as long as head and thorax together, first segment broad at apex, gradually widened behind and conforming in outline with base of second segment; apical segment flattened, margined laterally and very minutely roughened; venter shining, closely punctured.

Head black, opaque, with long sparse hair, pale on front, cheeks silvery sericeous, mandibles ferruginous, except tips; thorax entirely ferruginous, with black pubescence, longer and pale on metathorax; legs piceous, ferruginous at base, with pale pubescence, calcaria white; abdomen black, the pubescence above short and black, more or less pale at sides and beneath, basal segment above ferruginous at base, clothed with long rather dense pale pubescence; second segment with an obscure red band across the middle, slightly narrowed on disk and covered with short silvery pubescence; a broad silvery band on segments 3-5; beneath, the first and base of second segments ferruginous.

Benevides (July). One specimen. Compared with *credula*, this species is narrower in form, with much larger and more prominent eyes; thorax narrower, with a prominent erect tooth on each side behind the middle, and the abdomen is differently ornamented, having an obscure red band across the middle of second segment above.

11. **M. paulula** ♀.—Length 5 mm.—Very small, elongate, narrow; head slightly broader than thorax, transverse; eyes round, convex, polished; thorax

short, fiddle-shaped, densely punctured; anterior angles of mesothorax rounded, sides without teeth; metathorax obliquely declivous behind, flattened, with large, broad, reticulate punctures, the lateral margins minutely serrate; flanks of thorax smooth and polished; abdomen elongate, rather longer than head and thorax together, basal segment gradually widened to apex, which is as broad as base of second segment; apical segment convex, smooth and shining.

Head black, clothed with golden pubescence; face about base of antennæ, mandibles except tips, and antennæ, pale ferruginous; thorax ferruginous, a fuscous stain on each side of mesothorax anteriorly; legs rufo-testaceous, tibiæ varied with fuscous; calcaria white; abdomen black, first segment ferruginous, all clothed with silvery sericeous pubescence, especially at sides; second segment with two rounded, obscurely reddish spots above, covered with silvery pubescence; viewed from above the third to fifth segments have each a discal spot of silvery pubescence; beneath, the second and following segments have a transverse ferruginous line near apex.

Chapada (May). One specimen.

12. **M. parata** ♀.—Length 8 mm.—Small; head slightly broader than thorax, transversely subquadrate, scarcely narrowed behind eyes; cheeks longitudinally and acutely carinate beneath; eyes rounded, convex, smooth and polished; thorax short, broad anteriorly, fiddle-shaped; mesothorax densely punctured, anterior angles acute, three teeth on each side on posterior lateral margin; metathorax broad, depressed, with large, shallow, reticulate punctures, becoming smooth at apex, the lateral margin dentate; flanks of thorax smooth and shining; abdomen ovate, as long as head and thorax together, basal segment gradually widened to apex, which is as broad as base of second segment.

Head black, the front golden sericeous, the cheeks silvery sericeous, mandibles, except tips, ferruginous; antennæ fusco-ferruginous, paler at base; thorax ferruginous, mesothorax above with black pubescence, longer and pale on metathorax, anterior margin of mesothorax narrowly black; legs ferruginous, tibiæ and tarsi more or less tinged with fuscous, calcaria pale; abdomen black, with long scattered pale hair, and apical margin of the segments above and beneath fringed with silvery pubescence; an elongate, sublunate, testaceous mark on each side of disk of second segment above, slender toward base of the segment, the dilated portion toward tip and directed outwardly; third and following segments above densely clothed with silvery sericeous pubescence.

Rio de Janeiro (November). One specimen.

13. **M. bilunata** Burm. (Braz. Mutill., 1854, p. 10; *melanocephala* || Perty, Del. An. Art., p. 137, pl. 27, fig. 6).—♀.—Length 12 mm.—Robust; head large, transversely quadrate, broader than thorax, broad between eyes, rounded posteriorly, cheeks closely punctured, carinate beneath, unarmed; eyes rounded, convex, polished; thorax fiddle-shaped, broad and square in front, anterior angles acute, on each side a large, flattened, subacute tooth, curved posteriorly, and behind it a small tooth; metathorax depressed, rounded at sides and serrate; flanks smooth, polished; legs slender; abdomen short, ovate, convex; first segment broad at apex, sessile with base of second segment and conforming in outline therewith; second ventral segment finely, not closely punctured.

Head velvety black, with black pubescence, clypeus with some yellowish hair; scape fuscous; thorax honey-yellow, with golden pubescence, intermixed with black; collar and narrow anterior middle of prothorax black, with black pubescence; legs entirely honey-yellow; calcaria whitish; abdomen black, with black pubescence, except on pale portions; first segment dull honey-yellow on basal half, with long pale hair; second segment with a large lunate golden-testaceous mark on each side of the middle, almost meeting on the disk, the inner lobe narrow and reaching base of the segment; segments 3-6 with dense pale golden pubescence; venter with pale pubescence, the first and basal middle of second segment honey-yellow.

Rio de Janeiro (November). One specimen. Easily known by the large black head, honey yellow thorax and legs, and the two large pale yellow lunate marks on second abdominal segment.

14. **M. pergrata** ♀.—Length 8 mm.—Small; head slightly broader than thorax; transversely subquadrate, scarcely narrowed behind eyes; cheeks longitudinally and acutely carinate beneath; eyes rounded, convex, smooth and polished; thorax short, broad anteriorly, fiddle-shaped, above densely punctured, longitudinally strigose on disk of metathorax; anterior angles of mesothorax acute, the posterior lateral margin with two short, blunt teeth; lateral margin of metathorax acutely dentate; flanks of thorax smooth and shining; abdomen ovate, about as long as head and thorax together, basal segment gradually widened at apex, which is as broad as base of second segment; apical segment depressed, smooth.

Head black, with black pubescence, cheeks and face silvery sericeous; mandibles and basal half of antennæ ferruginous, apical half fuscous; thorax entirely ferruginous, except a fuscous stain on disk of metathorax; pubescence of thorax above rather long, erect and blackish; legs entirely pale ferruginous; calcaria pale; abdomen black, the erect pubescence on second segment above long and blackish, that on the sides silvery; third and following segments densely clothed with silvery pubescence; on each side of second segment above a transversely quadrate testaceous spot, deeply indented anteriorly, giving the spot a sublunate appearance; venter blackish, with pale pubescence, the second segment testaceous, except apical margin.

Rio de Janeiro (July). Size and form of *parata*, but differs in the ornamentation of the second segment of abdomen, and in the sculpture of the metathorax; resembles *bilunata* in markings, but otherwise very different.

15. **M. pacata** ♀.—Length 4.5-7 mm.—Small; head transverse, slightly broader than thorax, narrowed behind eyes; cheeks longitudinally and acutely carinate beneath; eyes large, convex, smooth and polished; thorax short, broad, fiddle-shaped, densely confluent punctured above, anterior angles acute; lateral margin of mesothorax with two acute approximate teeth; metathorax abruptly declivous behind, the lateral margins acutely dentate; sides of thorax deeply excavated medially, smooth and shining; abdomen ovate, shorter than head and

thorax together, basal segment gradually widened at apex, which is as broad as base of second segment and slightly constricted; apical segment flattened at tip, smooth and shining.

Head testaceous, paler on each side of vertex, golden sericeous; cheeks and narrow posterior margin of head black; flagellum blackish above; thorax rufo-testaceous above, anterior margin narrowly, a large spot on middle of mesothorax, and a narrow stripe on disk of metathorax, black; thorax laterally and beneath, and the legs testaceous or honey-yellow; calcaria whitish; abdomen above honey-yellow, second segment black except narrow basal margin, a large, broad, lunate, ochraceous spot on each side; segments 3-5 clothed with ochraceous pubescence; venter dull testaceous, varied with fuscous.

Santarem. Two specimens.

16. **M. tantula** ♀.—Length 4.5 mm.—Very small; head rather broader than thorax, transversely subquadrate; eyes round, convex, smooth and polished; thorax short, broad, fiddle-shaped, anterior angles acute, lateral margin of metathorax serrate; abdomen about as long as head and thorax together, basal segment gradually dilated to apex, which is as broad as base of second segment.

Ferruginous; head golden sericeous; apex of antennæ fuscous; thorax more or less varied with dusky above, somewhat golden sericeous, the erect hair blackish; the pubescence at apex of metathorax, on sides of thorax and legs pale; calcaria whitish; second segment of abdomen above blackish, with two oblong, subovate, dull ferruginous spots, clothed with pale golden pubescence, as are also the following segments.

Corumba (April). One specimen.

17. **M. Januarii** Dalla Torra (Catal. Hym., viii, p. 48; *pectoralis* || Smith, (Descr. New Species Hym. Brit. Mus., 1879, p. 211).—♀.—Length 7.5 mm.—Small, slender, densely confluent punctured; head wider than thorax, transversely subquadrate when viewed from above; eyes large, ovate, netted; thorax without spines or tubercles, rounded above, slightly subcompressed; abdomen oblong-ovate, basal segment quadrate, depressed, slightly dilated posteriorly.

Head black; scape, two basal joints of flagellum, thorax, legs entirely, and most of abdomen, honey-yellow; second segment of abdomen above, except sides and apical margin, black; an indistinctly defined ovate spot of ochraceous pubescence on each side of second segment above near base; sides and apex of same segment and the remaining segments clothed with silvery ochraceous pubescence; calcaria pale.

Rio de Janeiro (November). One specimen.

18. **M. invitata** ♀.—Length 6 mm.—Small, form slender; head subtriangular, transverse, much broader than thorax; eyes large, ovate, distinctly netted; thorax closely and finely punctured, rather long, subcompressed, rounded above, slightly narrowed anteriorly and gradually narrowed and sloping behind, sides not constricted or toothed; abdomen ovate, densely, finely punctured, first segment narrow, quadrate, depressed, apical segment rounded above, smooth, shining; venter smooth, shining, except second segment, which is deeply punctured; apical segment convex.

Head black, with dense golden pile above and on face; thorax dark ferruginous, the spiracles yellow; legs fuscous, with pale hair; calcaria pale; abdomen velvety black above, first segment fuscous; two narrow silvery ochraceous pubescent stripes extending from base of second segment to apex of fifth, slightly broadened posteriorly; venter with pale pubescence.

Chapada (April). One specimen. Recognized by the red thorax, and the black abdomen with two long pale stripes, much as in *biteviata* Spin.

19. **M. benevola** ♀.—Length 6.5–7 mm.—Form of *invitata*; head fuscous or black, more or less covered with pale golden or silvery pile; thorax dull ferruginous, with a broad black stripe on each side, interrupted at base of metathorax and forming a broad V-shaped mark thereon; legs entirely honey-yellow; calcaria pale; abdomen black, sides more or less ferruginous; a large mark on each side of second segment above rounded within and enclosing a black spot, a broad apical band indented medially and confluent at sides with anterior mark, and a broad transverse spot on disk of remaining segments, of dense golden pile.

Var. ?—The black V-shaped mark on metathorax less distinct, and the golden spots at base of second abdominal segment smaller and not enclosing a black dot.

Santarem. Three specimens. The abdomen is ornamented much as in *pachynemis* Burm., which it resembles in form, but in that species the head is entirely black.

20. **M. beatula** ♀.—Length 4–6 mm.—Form of *invitata*, but much smaller and the head not so broad; thorax marked much as in *benevola*; sides of second segment of abdomen, a broad apical band with undulate anterior margin, two short oblique stripes at base widely divergent posteriorly, and the remaining segments entirely, except central brownish spot, of dense golden pile; first segment ferruginous, silvery at base; venter ferruginous.

Santarem.

21. **M. integella** ♀.—Length 9 mm.—Head transverse, the eyes round, very convex, polished, separated from posterior margin of head by a narrow space; thorax rugose, slightly narrowed anteriorly and gradually so posteriorly, the lateral margin not constricted, unarmed, anterior angles of prothorax acute, metathorax abruptly declivous, the flanks excavated; abdomen with first segment nodose, the second densely punctured and opaque; apical segment flattened, longitudinally striated.

Black; with scattered, erect black pubescence; head with appressed golden pile; thorax ferruginous, the prothorax and spot on upper part of flanks black; lower portion of flanks with a patch of silvery pubescence; legs fuscous, paler at base, calcaria pale testaceous; abdomen fuscous, darker on the second segment above; apex of first segment silvery, the second with two oblong, opaque, yellowish spots; extreme sides of second segment silvery pubescent; apical segment with golden pubescence.

Chapada (April).

22. **M. verecunda** ♀.—Length 7.5 mm.—Same form as *integella*. Head with silvery pubescence; thorax ferruginous, the prothorax and a large irregular stain on mesothorax black; legs fuscous, calcaria pale; abdomen fuscous, the first segment with a patch of whitish pubescence at apex; second segment blackish above, with a large, broad, elongate, ferruginous spot on each side, narrowed anteriorly and reaching the basal margin of the segment; extreme sides of second segment and a dot on apical middle silvery pubescent; the apical segment more or less silvery on middle above.

Chapada. One specimen. Very much like *integella*, but the two spots on second abdominal segment are much larger, longer and ferruginous.

23. **M. harpyia** Gerst. (Archiv. f. Naturg. xl, p. 65).—♀.—Length 12-14 mm.—Closely but not coarsely punctured; head very broad, transversely subquadrate, occiput very deeply triangularly emarginate, posterior angles sharply carinate; cheeks finely punctured, closely so near the eyes; face beneath antennæ deeply transversely excavated, the antennæ inserted in the excavation, the front with two prominent, porrect, well separated, slightly divergent tubercles overhanging insertion of antennæ; eyes small, subovate, subconvex, smooth and polished, unusually distant from each other; mandibles long, sharp, with a large stout tooth on upper edge before apex, and a curved groove on middle of upper surface; thorax short, subquadrate, about one and a half times longer than broad, constricted laterally about the middle, where the margin is subtuberculate; metathorax abruptly truncate behind, the lateral margin carinate, but not serrate; flanks of thorax impunctate; abdomen short, broad, ovate; first segment very broad at apex and sessile with base of second; pygidium broad, finely alutaceous, smooth at tip, with the edges reflexed.

Black; the pubescence above short, appressed and black; cheeks sparsely clothed with pale pubescence, the face beneath antennæ fringed with long, pale, glittering hair; mandibles red medially; antennæ sericeous, scape piceous, with pale pubescence; a suboblique, silvery pubescent stripe on each side of head behind eyes, slightly widened posteriorly, and on each side of thorax above a silvery-ochraceous stripe, slightly broader on metathorax, and not extending beyond the verge of the truncation; legs piceous, with pale hair, those on four posterior tibiae above more or less black; calcaria white; abdomen at base, sides and apex above with pale hair; a pale golden pubescent stripe begins on middle of first segment and extends to apical fourth of second segment, and on each side of the apex of this stripe there is a rather small subtransverse spot of same color; apical middle of segments 4 and 5 above more or less silvery ochraceous; venter shining black, with pale pubescence, especially on apical margin of the segments.

Chapada. Compared with *bucephala* Perty, this species differs chiefly in the posterior margin of the head being very much more deeply emarginate, the lateral angles acute, the cheeks not armed beneath base of mandibles, the thorax quite as broad in front as behind, and with a silvery pubescent stripe on each side above, and the abdomen above is differently ornamented, having a central pale

ochraceous pubescent stripe on the two basal segments and a spot on each side near apex of second segment.

24. **M. vera** ♀.—Length 8 mm.—Head transversely subquadrate, broader than thorax, posterior angles rounded, carinate, the carina extending beneath on cheeks nearly to base of mandibles; the eyes round, very convex, polished; thorax rugosely punctured above, short, fiddle-shaped, slightly broader in front, anterior angles acute, lateral middle rather deeply constricted, the lateral margin with two teeth or tubercles in front of the constriction; metathorax obliquely declivous behind, the lateral margins acutely dentate; flanks of thorax broadly excavated about the middle, smooth and polished; abdomen ovate, first segment broad at apex, sessile with base of second and conforming in outline therewith; the pygidium smooth and shining; first segment beneath unarmed, the second sparsely punctured.

Velvety black above; antennæ, mandibles, collar and metathorax above, the thorax at sides and beneath, legs and first segment of abdomen, ferruginous; head above and between eyes with dense pale golden pubescence: a silvery stripe on each side of thorax, extending from middle of mesothorax to middle of metathorax; thorax beneath and legs with sparse pale pubescence; calcaria white; the three basal segments of abdomen at apex above, triangularly dilated on apical middle of second, and the terminal segment above, clothed with pale golden pubescence; ventral segments fringed with pale pubescence.

Chapada. (April). One specimen. A very pretty little species, with its large bright golden head, silvery stripe on each side of thorax, pale golden band on apices of first and second abdominal segments, and the ferruginous antennæ and legs.

25. **M. cephalotes** Swed. (Klug, Nova Acta Cæs. Nat. Cur. x, p. 322, pl. xxiii, fig. 11).—♀.—Length 17 mm.—Head very large, depressed, quadrate, prolonged behind the eyes; cheeks with a large acute tooth beneath; thorax somewhat fiddle-shaped, being broadest at anterior tubercles which are prominent, slightly narrowed anteriorly and rapidly so posteriorly to the metathoracic spiracles; legs robust, spines on tibiæ stout; abdomen ovate, first segment depressed, conforming in outline with base of the second segment, being only slightly constricted at apex.

Head black, cheeks more or less, and scape with pale pubescence; thorax black with two broad, pale golden pubescent stripes extending anteriorly from apex of metathorax almost to posterior margin of prothorax; flanks densely pale golden pubescent; legs black with pale hair, calcaria black or fuscous; abdomen black, the first segment, sides of and narrow apical margin of second and remaining segments, except black central stripe, pale golden pubescent; on middle of second segment above a large, rounded, bright orange-golden or cupreous pubescent spot.

Brazil (no definite locality). Two specimens.

26. **M. specularis** Gerst. (Archiv. f. Naturg. xl, p. 47).—♀.—Length 12 mm.—Densely punctured; head large, quadrate when viewed in front, much broader than thorax, slightly narrowed posteriorly, very broad between the

small, ovate, depressed eyes, the distance from the eyes to posterior margin of head more than half that between the eyes themselves; posterior margin broadly not deeply concave, and that of cheeks acutely carinate and ending beneath in a prominent acute tooth; antennæ long, slender; thorax rather small, fiddle-shaped, the sides anteriorly—when viewed from above—acutely angular; metathorax short, rounded above, truncate behind, the lateral margin suberuncate, flanks depressed, finely, transversely wrinkled; tibiæ strongly spined, tarsi long, slender; abdomen with first segment transversely rounded when viewed from above, depressed, subsessile with base of second segment; second ventral segment subconvex, sparsely punctured.

Black, the pubescence black, with short and long scattered erect hair; an ill-defined oblique spot behind each eye, more distinct when viewed in front, the cheeks in certain lights, two spots on mesothorax and also on metathorax, both subconfluent, and lower margin of flanks, all golden pubescent; tubercles at insertion of antennæ, and mandibles except tips, ferruginous; scape and base of flagellum fuscous, sericeous with golden pubescence; sides of thorax and legs brown, the latter with long, pale pubescence; calcaria pale fuscous; first abdominal segment, and venter brown, with pale pubescence; second segment with a large rounded central spot of dense appressed orange-golden pubescence; apical margin of segments 2 and 3 and sides of 6 fringed with pale golden pubescence.

St. Catherina. The ornamentation of second abdominal segment above is much like that of *cephalotes*, which it closely resembles (although only half the size), but without the lateral silvery stripes.

27. **M. spiniceps** ♀.—Length 15 mm.—Coarsely, confluent punctured; head large, quadrate, broader than thorax, deeply emarginate posteriorly, the sides behind eyes rounded and narrowed to the acute posterior angles; two short tubercles between insertion of antennæ; posterior angles of occiput with a strong sharp carina, forming an acute tooth when viewed from above; head beneath with two long, subacute, slightly divergent, distant teeth, behind each of which is a somewhat hooked tooth on lower posterior angles of the head; eyes ovate, distinctly netted; thorax short, fiddle-shaped, a short stout tubercle on each side just behind the prothorax; metathorax short, rounded above, abruptly declivous behind, posterior disk flattened; flanks of thorax excavated, smooth and polished; abdomen ovate, about as long as head and thorax together; first segment subnodose, dilated posteriorly, subconstricted and depressed at apex, the anterior face of the segment being broadly flattened, and almost smooth; pygidium ovate, feebly punctured, sides acutely margined; venter shining, deeply and sparsely punctured.

Head and thorax entirely deep black; clypeus with long white hair; flanks of thorax with silvery sericeous pile; legs piceous, with long, rather sparse whitish hair, coxæ silvery sericeous, calcaria honey-yellow; abdomen black, narrow apical margin of the segments and also the pygidium, dark ferruginous, second segment above with an elongate ovate discal spot of golden pubescence, and the third segment with a transverse golden spot on each side of the middle; apical margin of the segments beneath fringed with long pale pubescence.

Santarem. One specimen.

28. **M. centromaculata** ♀.—Length 15 mm.—Form same as in *spiniceps*, except that the head laterally behind eyes is more straight and not narrowed to the tooth at posterior angles; when viewed from above, this tooth is slightly divergent and not bent inward as in *spiniceps*; the two teeth beneath on the throat are close together, straight and distant from the tooth on under side of cheeks; clypeus with a long, narrow, flattened process on apical middle, somewhat as in *armata*, but less porrect, and deeply emarginate at apex.

Color much as in *spiniceps*; the cheeks, a large rounded spot on each side of head behind eyes and the sides of mesothorax above, clothed with silvery pubescence; the silvery pile on flanks of thorax is more dense and brilliant; calcaria honey-yellow; sides of first segment above, basal sides and lateral apical margin of second and an interrupted band on apex of third segment, clothed with dense silvery pubescence; middle of second segment above with a rather large ovate spot of cupreous pubescence; apical margin of the segments above and beneath fringed with long pale hair, the depressed apical margin of the segments ferruginous.

Paracary (January). One specimen. Closely allied to *spiniceps*, but amply distinct by the different armature of the head. It also resembles *cephalotes* in color, but differs in the form of the head and of first segment of abdomen, while the cupreous spot on second segment is much smaller.

Also closely resembles *moneta* Gerst., which, however, has no such projection on the clypeus; the tooth on cheeks beneath longer, and those on the throat shorter and more widely separated; the posterior angles of the head are acutely produced when viewed from the side; and the first segment of the abdomen is narrow at apex. In ornamentation *moneta* has the pale pubescent markings on the abdomen above almost exactly like those in *centromaculata*, but uniformly golden, while in the latter species they are silvery, except the central spot on second segment which only is golden.

29. **M. Smithii** ♀.—Length 15-17 mm.—Head and thorax coarsely, rugosely punctured; head very large, quadrate, truncate behind, posterior angles above rounded, beneath armed with a rather short acute tooth directed forwards; two small obtuse tubercles between insertion of antennæ; eyes small, short ovate, flattened and distinctly netted, placed on the vertex, and leaving nearly as much space between them and the occiput as that between the eyes themselves, which are unusually wide apart; thorax fiddle-shaped, but broader in front than behind, and strangled at the middle laterally, the lateral margin in front of the constriction obtusely angular, not dentate; disk of metathorax rounded above, the posterior face slightly concave and smooth, upper margin of flanks coarsely, subobliquely striated, as are also the sides of the thorax anteriorly; metathoracic spiracles prominent, polished; middle flanks of thorax deeply excavated, smooth and polished; abdomen short, ovate, the first segment

broad behind and sessile with base of second segment; pygidium alutaceous at base, smooth at tip.

Black; cheeks, space on front between eyes and scape of antennæ thinly clothed with pale glittering pubescence; an oblique silvery pubescent stripe behind eyes; on each side of metathorax above a silvery pubescent stripe extending forward nearly or quite to middle of mesothorax; lower margin of flanks of thorax with patches of dense silvery pubescence; legs black, clothed with pale pubescence, long and thin on femora; on outer sides of four posterior tibiæ the pubescence is more or less black, the calcaria black or fuscous; abdomen clothed above with appressed black pubescence; first segment with a silvery patch on each side of disk above; on each side of second segment at base a short, suboblique silvery stripe, between which and the lateral margin the surface is smooth and polished; on basal middle of this segment a pyriform or subtriangular spot of pale golden or orange-golden pubescence, the narrower part reaching the base of the segment; two rather broad silvery stripes on apical half of the abdomen above, beginning at apex of second segment; venter with sparse, pale hairs, the apical margin of the segments fringed with pale pubescence.

Chapada. Common. Allied to the three preceding species, and also to *armata* Klug, but very different in many ways.

It gives me much pleasure to dedicate this handsome species to my friend Herbert H. Smith, the indefatigable collector in Natural History, and by whose discoveries so many new and beautiful species have been added to our knowledge of the South American fauna.

30. **M. armata** Klug (Nova Acta Cæs. Cur., x, p. 323, pl. xxiii, fig. 12).—♀.—Length 18 mm.—Head very large, transversely subquadrate, twice broader than thorax, prolonged behind eyes, lateral posterior margin acutely carinate, and when viewed from above the lateral angles appear acutely spinose; beneath, the cheeks have on each side a long, divergent, acute tooth, behind which is a small acute tooth; clypeus with a long, median, obtuse, porrect, slightly recurved tooth, above which are two short obtuse tubercles; eyes small, ovate, depressed, very wide part, the front being unusually broad; mandibles long, acute at tip; thorax narrow, subcompressed, the lateral tubercles at posterior margin of prothorax prominent; metathorax abruptly declivous behind, the lateral margin not serrate, flanks smooth, impunctate; legs slender, tibiæ and tarsi strongly spinose; abdomen ovate, basal segment subpetiolate gradually dilated posteriorly, the anterior face flat and obliquely declivous, the apex transversely narrowed, band-like, with a row of short suberect teeth on anterior margin; pygidium finely alutaceous; ventral segments strongly not densely punctured.

Velvety black, with long, scattered, black hair; a subtriangular spot behind each eye, a long U-shaped mark on thorax above, lower portion of pleura, a band on apex of first segment of abdomen, a narrow, elongate mark on middle of second segment and a spot on each extreme side near base, also narrow apical margin of this segment, broadly interrupted on disk, and a wedge-shaped mark on each side of third segment, pointed to disk, all of pale golden or silvery pubescence; base of antennæ, legs, apex of abdomen and venter more or less clothed

with pale pubescence; calcaria black; base of second ventral segment ferruginous or dark red.

Chapada. Resembles *Smithii* in form, but the armature of the head is different, as is also the ornamentation.

31. **M. bucephala** Perty (Del. An. Art. Braz., p. 137, pl. 27, fig. 8).—♀.—Length 13 mm.—Head very large, transversely subquadrate, occiput slightly emarginate, almost truncate, lateral angles rounded, sharply carinate, the carina continued forwards on the cheek beneath, and ending in an acute or subacute, oblique tooth directed forwards beneath base of mandibles; cheeks deeply punctured; two longitudinal, subtuberculate carinae between insertion of antennae, immediately beneath which is a tuft of long pale pubescence; mandibles deeply grooved along upper surface; eyes small, ovate, depressed, finely netted, not polished; thorax very short, broadest in front, then narrowed to base of metathorax, where it is somewhat constricted, the lateral margin not dentate; metathorax abruptly declivous and truncate behind, the posterior face flat, smooth and shining; abdomen short, broad ovate, first segment broad, sessile with base of second segment; pygidium opaque, densely and finely punctured.

Velvety black above; cheeks almost nude, having a scattered pale pubescence; sides of clypeus clothed and fringed with white pubescence; a broad oblique pale ochraceous stripe behind each eye; scape of antennae with pale pubescence; posterior face of metathorax with sparse erect black hair, a pale ochraceous pubescent stripe on each side from spiracles to apex; mesothorax with a narrow central ochraceous-yellow stripe on its entire length, sometimes interrupted medially; flanks of thorax with pale ochraceous pubescence on lower margin, above which midway is a broad, shallow, smooth, polished excavation; legs black, with sparse black pubescence; calcaria black; abdomen above velvety black, a spot on apical middle of first segment, sometimes continued on base of second, a stripe on lateral margin of first segment and basal half of second (beneath which the surface is smooth and shining), a triangular spot on apical middle of second segment, continued in a narrow stripe to apical segment, and lateral margin of all the segments more or less, all of pale ochraceous pubescence, the central spot on segments 1 and 2 generally ochreous-yellow; venter shining, thinly clothed with pale pubescence, the segments fringed at apex with pale hair.

Corumbá, Chapada.

32. **M. victura** ♀.—Length 8-10 mm.—Head large, quadrate, broader than thorax; occiput emarginate, lateral posterior angles rounded, carinate, the carina extending on cheek beneath and ending in an obtuse compressed tooth below base of mandibles; cheeks densely punctured; above insertion of each antenna a prominent obtuse tooth or tubercle; on middle of clypeus two divergent carinae joined at base and extending to anterior margin; mandibles with a longitudinal groove on upper margin, which is not toothed; eyes small, rounded, very convex, smooth, polished; thorax short, fiddle-shaped, broader anteriorly, strongly constricted at lateral middle, before the constriction are two prominent tubercles, the posterior one smaller and acute; metathorax obliquely declivous, the lateral margin coarsely serrate; flanks of thorax smooth, impunctate, broadly and shallowly excavated about the middle; abdomen ovate, first segment broad, not constricted

at tip, which is sessile with base of second segment and conforming in outline therewith; pygidium sparsely punctured, shining; beneath, the first segment has a large prominent compressed tooth, second segment shining, sparsely punctured.

Velvety black above; cheeks, face and scape of antennæ clothed with silvery pubescence; two broad, oblique, golden stripes on vertex; mandibles generally, and occasionally the frontal tubercles, rufo-ferruginous; lateral margin of thorax above, broader on metathorax, silvery or pale golden; flanks of thorax with short pale sericeous pubescence; legs black, with pale glittering pubescence; calcaria white; a spot on apical middle of first abdominal segment, often extending a short distance on the second, a stripe on middle of apical half of second segment, extending to apical segment, and an oblique spot on each side of second segment posteriorly, all of silvery or pale golden pubescence, those on disk of first and apex of second segments generally darker in color than the rest; lateral margin of all the segments, and the apical segment, with longer silvery-white pubescence; venter sometimes pale piceous, thinly clothed with pale pubescence, more dense on apical margin of the segments.

Var. *a*.—Head and thorax above entirely black, except lateral margin of metathorax above, which is sometimes silvery.

Var. *b*.—Head above entirely golden.

Chapada. Common.

33. ***M. gigantea*** Perty (Del. An. Art., p. 138, pl. 27, fig. 9).—♀.—Length 18–20 mm.—Large, black; head quadrate, not broader than thorax, rounded posteriorly, prolonged behind eyes, which are small, convex, polished; vertex with two broad silvery-white pubescent stripes over the eyes; thorax narrowed anteriorly, sides tuberculate or spinose, those at base of mesothorax prominent, obtuse, smooth and polished; spiracles at base of metathorax prominent, two silvery-white pubescent stripes on metathorax, ending anteriorly in a spot on each side of mesothorax at base; lower portion of flanks densely silvery pubescent; abdomen oblong-ovate, first segment broad at apex, anterior face flat, apex depressed band-like, with a subapical row of short teeth; sides of first segment, a double line on each extreme side of second, two short, slightly oblique, longitudinal lines on middle above, and sides of remaining segments, silvery white or pale ochraceous pubescent; legs more or less clothed with pale glittering pubescence, the apical porrect spine of posterior tibiæ thickened at base and suddenly narrowed toward apex into a slender acute spine; calcaria pale.

Chapada; Corumbá. Rather common. A large conspicuous species.

34. ***M. cerbera*** Klug (Nova Acta Cæs. Nat. Cur., x, p. 312, pl. xxii, fig. 9).—♀.—Length 15–18 mm.—Rather slender, black; head small, transverse, not prolonged behind eyes, front long; eyes round, convex, polished; thorax slightly narrowed anteriorly, sides tuberculate, those at sides of mesothorax at base large, prominent, obtuse, those at anterior angles small, polished; metathorax rounded above and abruptly declivous posteriorly; legs slender, more or less clothed with white pubescence, the apical spine of posterior tibiæ slender throughout, calcaria black; head almost entirely, a small spot on disk of prothorax, a stripe on sides of metathorax, ending at base in a spot at spiracles, between which is a small cru-

ciform mark, lower portion of flanks, three stripes on first abdominal segment, continued on base of second, the central stripe shorter, forked at base and triangular at apex, a biarcuate band on apex of second segment, produced anteriorly on disk, sides of segments 2 and 3, two dots on apical middle of second, small spot on apical middle of segments 3 and 4, large spot on 5, and two bands on venter, all of appressed white pubescence; abdomen elongate oval, first segment narrow, gradually dilated posteriorly, and conforming in outline with base of second segment, which is narrow.

Chapada. Common.

35. **M. centrovittata**.—♀.—Length 8–13 mm.—Head transverse, not broader than thorax; eyes very convex, smooth, polished; thorax rather short, laterally subcompressed, not constricted when viewed from above, gradually narrowed posteriorly; metathorax rounded above; abdomen broad ovate, convex, gibbous at base of second segment; first segment small, narrow, flattened above; pygidium finely longitudinally aciculate; second ventral segment finely punctured.

Black, velvety, with scattered long black hair, erect on head and thorax and more or less decumbent on abdomen; head above and face densely ochraceous pubescent, with longer pale hair, paler on the cheeks; a stripe of ochraceous pubescence on disk of thorax its entire length, broad anteriorly, and gradually narrowed to apex of metathorax; flanks of thorax with dense pale ochraceous pubescence; legs with pale pubescence, the coxæ and femora with long pale hair, calcaria black; abdomen velvety black, first segment above, a large broad transverse, slightly oblique spot on each side of apical third of second segment, and a spot on disk of segments 4 and 5 above, of dense pale ochraceous pubescence; apical segment above, and the venter especially at base, more or less ferruginous; apical margin of ventral segments 2 and 3 fringed with pale pubescence.

Chapada. Common.

36. **M. Gazagnairei** André (Bull. Soc. Ent. France, 1895, p. cccxxii).—♀.—Length 8–12 mm. —Closely allied to *centrovittata* both in form and color, but differs as follows: The head is clothed entirely with pale ochraceous pubescence, except a small black spot on disk of vertex; the thorax has *two* rather broad, entire pale ochraceous stripes above; the ochraceous spots on second abdominal segment are more widely separated on disk, and rather more oblique; the apical segments are broadly pale ochraceous at sides and with long pale hair, while the venter is fuscous, with long pale hair, and the apical margin of the segments fringed with pale pubescence; the apical segments above have no pale spots on disk; legs fuscous, with long pale hair.

Chapada. Common. Much like *centrovittata*, but easily separated by the thorax having two pale pubescent stripes, and by the apical segments of abdomen above having no discal spots.

37. **M. bifurca** Klug (Nova Acta Cæs. Nat. Cur., x, 313, pl. xxii, fig. 10).—♀.—Length 8–12 mm.—Head short, transverse, narrower than thorax; eyes round, smooth, convex; thorax oblong, rounded laterally and above, narrowed behind

mesothorax, very slightly constricted, unarmed; metathorax rounded above, posterior face declivous; abdomen elongate-ovate, longer than head and thorax; first segment small, depressed, gradually widened posteriorly and sessile with base of second segment; apical segment flat, longitudinally striated; beneath, the second segment is shining, strongly punctured.

Velvety-black, the pubescence black and appressed, a few erect hairs on head and prothorax anteriorly; head except occiput, a broad stripe on each side of metathorax, pleura, an oblique stripe when viewed from above—lunate when viewed from the side—on each side of second segment posteriorly, a line or spot on each side of segments 3-5, and a spot on middle of segments 4 and 5, all of dense, appressed silvery-white pubescence; calcaria pale; legs and apical margin of ventral segments 2-5, clothed with silvery pubescence.

Chapada. Common. A beautiful species, closely allied to the two preceding, but the pro- and mesothorax are entirely black above.

38. **M. auroplaga** ♀.—Length 4-6 mm.—Head transverse, scarcely broader than thorax; eyes subovate, flatly convex, distinctly netted; thorax almost square, a little longer than broad, slightly narrowed at lateral middle; metathorax abruptly truncate behind; abdomen oblong-ovate, first segment very broad, not at all constricted at tip, sessile with base of second segment and conforming in outline therewith, apical segment finely longitudinally aciculate.

Black, opaque; head uniformly clothed with silvery pubescence, as is also scape of antennæ; middle of mandibles more or less, and antennæ except base and apex, fusco-ferruginous; thorax above clothed with short black or fuscous pubescence, that on metathorax pale; a stripe on lateral margin of thorax above, connected posteriorly with a band on base of metathorax, of silvery pubescence; legs piceous, clothed with griseous pubescence, trochanters and tarsi more or less fusco-ferruginous; calcaria white; first segment of abdomen and basal sides of second clothed with long silvery-white hair; a spot of appressed silvery pubescence on sides of third segment, covering also the lateral apical margin of second; a broad stripe of bright golden or coppery-golden pubescence, commencing on apical middle of first segment, slightly dilated posteriorly and ending on apical middle of third segment; apical segment testaceous or rufo-testaceous, with a golden or coppery reflection, and fringed with long silvery-white pubescence; venter piceous, pale at apex and on apical margin of the segments, clothed rather sparsely with pale pubescence.

Chapada. A beautiful little species, with a broad, central, bright golden cupreous, pubescent stripe on abdomen above, extending from first to apex of third segments. Closely related to both *empyrea* Gerst. and *picta* André.

39. **M. calvaria** ♀.—Length 12-13 mm.—Form slender, densely confluent punctured, coarsely so on cheeks, and on sides of thorax and of abdomen; head broader than thorax, quadrate when viewed in front, transversely so from above; eyes ovate, finely netted; sides of cheeks longitudinally carinate beneath; thorax long, slender, subcompressed, gradually narrowed behind; abdomen ovate, strongly gibbous at base of second segment, basal segment depressed, quadrate, slightly dilated posteriorly.

Black, sparsely hairy; a transverse or triangular spot on head above, a slender longitudinal stripe on disk of metathorax, lower margins of prothorax, pleura and metathorax, basal segment of abdomen at sides and apex above, two small round or ovate spots on second segment above near base, also a band at apex interrupted on disk, its narrow lateral margin, and a narrow band near apex of second segment beneath, all silvery-white pubescent; apex of third and apical segments above and beneath more or less silvery in certain lights; calcaria white; in one specimen the transversely triangular spot on head above is ochraceous.

Chapada (January to April). Two specimens.

40. **M. felix** ♀.—Length 8 mm.—Much like *calvaria*, but smaller and more pilose; face and most of head above densely pale ochraceous; a stripe on each side of metathorax (no central stripe), sides of prothorax, most of first segment of abdomen, broad band, interrupted medially, at apex of second segment, lateral margin of same, a small longitudinally quadrate spot on each side of disk of segments 3-5, sides of same, and bands on venter, all silvery white; no spots on base of segment 2; apical segment and legs with silvery hair.

Chapada (December). One specimen.

41. **M. crusa** ♀.—Length 11 mm.—Form slender; head coarsely, confluent punctured, viewed from above transversely subquadrate, broader than thorax; eyes rather large, ovate, finely netted; cheeks not carinate beneath, but toothed at the anterior extremity; thorax narrow, subcompressed, without spines or teeth; metathorax gradually narrowed posteriorly; abdomen ovate, gibbous, basal segment small, quadrate, depressed, very slightly widened posteriorly.

Head, pro- and mesothorax velvety black, with black hair; pleura, metathorax (except narrow longitudinal blackish stripe on disk) and basal segment of abdomen, pale golden or ochraceous pubescent; legs brown, with pale golden or ochraceous pubescence; calcaria whitish; abdomen black, two rather large rounded spots of dark golden or cupreous pubescence at base of second segment, and two quadrate spots of same color at apex of segments 2-5, large on 2 and diminishing in size on 3-5; ventral segments and lateral margin of dorsal segments with silvery-ochraceous pubescence.

Rio de Janeiro (October). One specimen.

42. **M. projectifrons** ♀.—Length 8-12 mm.—Very closely punctured, more coarsely so on the head and thorax above; head transverse, subquadrate, broader than thorax, occiput rather deeply emarginate, lateral angles obtusely rounded, sharply carinate, the carina on each side extending to middle of cheeks beneath and ending in a small acute tooth; face transversely excavated, the front overhanging or projecting like an overshoot, and armed on each side with a transversely compressed divergent tubercle, the tip of which is subacute and somewhat incurved; mandibles long, acute at tip, the upper edge armed with a large acute tooth about the middle; eyes small, rounded, very convex, smooth and polished; thorax a little longer than broad, short, fiddle-shaped, broader in front, deeply constricted at lateral middle, anterior angles acute, two acute tubercles on lateral margin in front of constriction, the anterior one much the largest and directed backward; metathorax rather abruptly truncate behind, lateral margins finely

serrate; flanks of thorax with a broad, deep, polished excavation on posterior half; abdomen ovate, first segment very broad, sessile with base of second and conforming in outline therewith; pygidium smooth and shining; first segment beneath unarmed.

Black, clothed above with short, decumbent, black pubescence; cheeks, face and scape of antennæ with pale glittering pubescence; an oblique stripe on each side of vertex and on lateral margin of thorax above as far as verge of truncation on metathorax, of silvery pubescence; metathorax behind with long pale pubescence; legs and venter piceous or fuscous, shining, clothed with pale pubescence; calcaria whitish; abdomen at base and sides with scattered pale pubescence, second segment with two rather large, longitudinally ovate, opaque yellow or reddish spots; apical middle of segments 3-5 with a spot of silvery pubescence.

Chapada. Easily recognized by the overhanging projection on the front.

43. **M. araxa** ♀.—Length 8-14 mm.—Head transversely quadrate, slightly broader than thorax, posterior angles rounded, carinate; eyes convex, smooth and polished; thorax short, fiddle-shaped, deeply constricted on each side behind the middle; lateral margin of mesothorax with two or three short, obtuse teeth before the constriction; metathorax abruptly declivous posteriorly, the lateral margin serrate, flanks broadly and rather deeply excavated about the middle, smooth and shining; abdomen ovate, first segment broadly dilated posteriorly, sessile with base of second segment and conforming in outline therewith; apical segment above very closely and finely punctured.

Velvety black above; clypeus, cheeks—extending up on each side of vertex obliquely behind the eyes, scape, a stripe on each side of thorax above extending from prothorax almost to apex of metathorax, sides of pro- and mesothorax, a spot above the four posterior coxæ, tufts on each extreme lateral apical margin of abdominal segments 2-5, and a square spot on apical middle of segments 3-5, of pale golden or silvery pubescence; sides of metathorax with long white hair; legs clothed with whitish pubescence, calcaria pale, tarsi often more or less rufo-testaceous; second abdominal segment above with two rounded, subopaque yellow or orange-yellow spots, one on each side midway between base and apex; venter sometimes reddish, clothed with whitish pubescence, the segments fringed at apex with rather long whitish hair.

Chapada, Corumbá. At first sight this looks like *projectifrons*, but besides the plain front, the head is not emarginate behind, the thorax is longer, and the pale spots on second abdominal segment are rounded, not oval.

44. **M. turnalis** ♀.—Length 10 mm.—Densely and strongly punctured; head transversely subquadrate, slightly broader than thorax, posterior margin straight, lateral angles rounded and carinate; cheeks unarmed, but sharply carinate beneath; eyes small, rounded, convex, smooth and polished; thorax short, fiddle-shaped, a little longer than broad, broader anteriorly, rather deeply constricted about the lateral middle, with two or three small teeth on lateral margin in front of the constriction; metathorax abruptly truncate behind, the lateral

margins finely serrate; abdomen ovate, first segment broad, sessile with base of second, and conforming in outline therewith; pygidium rugulose at base, smooth at tip.

Black, clothed with black pubescence above; cheeks, face, scape of antennæ, thorax beneath, metathorax behind, and legs, with pale glittering pubescence; an oblique stripe on each side of vertex, and two on thorax above not reaching anterior margin, of silvery pubescence; a silvery sericeous patch on lower margin of flanks of thorax; calcaria whitish; a spot on each side of first abdominal segment at apex, lateral margin of second, and the remaining segments, except a broad median black stripe, of silvery pubescence; second segment with two tolerably large, rounded, punctured, opaque yellow spots; venter with pale pubescence.

Corumbá, Chapada. Very much like *araxa*, but smaller, the thorax shorter and broader, and sides of metathorax not serrate. In *araxa* the sides of the head behind the eyes and the cheeks are pale golden, as well as the broad stripes on the thorax extending the entire length; while in *turnalis* there is an oblique silvery line behind each eye and an abbreviated line on each side of thorax, half way on meso- and metathorax. The sides of first abdominal segment of *turnalis* has a white pubescent spot, and the sides of segments 3-5 are broadly silvery, with a black central stripe; while in *araxa* the first segment has some long pale hairs at base, and segments 2-5 have three silvery stripes, one on the middle and one on each extreme side.

45. *M. curiosa* ♀.—Length 7 mm.—Small, densely, confluent punctured; head transversely quadrate, broader than thorax, scarcely narrowed behind eyes, the posterior angles acute when viewed from above; eyes round, convex, smooth and polished; thorax broad, fiddle-shaped, an acute hooked spine on each side at about the middle; metathorax rounded above, abruptly declivous behind, the flanks deeply excavated, smooth and polished; abdomen ovate, as long as head and thorax together, first segment not nodose, not constricted at apex, but gradually widened posteriorly, and sessile with and conforming in outline with base of second segment; venter shining, sparsely punctured.

Opaque black, head and thorax with erect black hair; mandibles, except tips, ferruginous; clypeus silvery-sericeous; cheeks, an oblique mark behind each eye and meeting on posterior margin of occiput, two longitudinal lines on thorax above reaching to tip of metathorax, but not extending on prothorax, and lower part of flanks of thorax, all clothed with silvery pubescence; legs clothed with pale glittering hair, calcaria whitish; abdomen velvety black, basal segment, as well as apex of metathorax, with pale hair; the sides of abdomen and venter with silvery pubescence; two large ovate ferruginous spots, clothed with cupreous pubescence, on second segment above, a rather broad median longitudinal stripe of silvery pubescence beyond second segment, composed of spots on apical middle of segments 3-5; pygidium pale ferruginous.

Chapada (October). One specimen. This agrees tolerably well

with the description of *plagifera* André, but the head above is ornamented with two oblique silvery lines, and the cheeks and clypeus are also silvery; it may prove to be only a variety.

46. **M. bombycina** ♀.—Length 10 mm.—Head quadrate, broader than thorax, space behind the eyes broad, the cheeks carinate beneath, eyes rounded, convex, polished; thorax fiddle-shaped, anterior angles of prothorax acute, lateral margin of mesothorax irregularly toothed, of metathorax serrate; flanks excavated, smooth and polished; abdomen elongate, the first segment broadly dilated at apex and conforming in outline with base of second segment.

Black, densely clothed with appressed silky brownish ochraceous pubescence, which is silvery in certain lights; when viewed from above there is an obscure silvery spot on each side of the head, and a broad silvery stripe on each side of thorax; legs black, with pale glittering pubescence, calcaria very long and white; on each side of second abdominal segment above, about the middle, two small, round, pale yellow, smooth shining spots, somewhat obscured by the sericeous pubescence; apical segments thickly clothed with silvery pubescence.

Chapada. One specimen. Differs from all the species examined by the uniform pale silky appearance.

47. **M. carinigena** ♀.—Length 7-8.5 mm.—Head very large, quadrate, slightly narrowed posteriorly, broader than thorax, posterior margin deeply emarginate, with acute lateral angles; cheeks on each side beneath with a sharp longitudinal carina, extending to posterior angles above, and ending anteriorly in a blunt tooth; eyes rather small, round, convex, smooth and polished; space behind eyes about equal to width of thorax anteriorly; thorax small in comparison with the head, fiddle-shaped, anterior angles rounded, lateral margin of mesothorax with two or three small teeth, that of metathorax coarsely serrate or spinose; legs slender, middle and hind tibiae with five or six long slender spines on outer margin, joints of tarsi long and slender; basal segment of abdomen subnodose, dilated posteriorly, the anterior face almost perpendicular, subapical margin not dentate.

Black, with sparse erect black hair, face and cheeks silvery; a longitudinal suboblique stripe behind each eye, and a broad stripe on each side of thorax above, extending to apex of metathorax, silvery pubescent; mandibles dark ferruginous; sides of thorax silvery sericeous; legs fusco-ferruginous, clothed with silvery pubescence, calcaria whitish; a large, rounded, opaque, sanguineous or bright ferruginous spot on each side of second abdominal segment; anterior face of first and sides of the following segments with silvery pubescence; a silvery spot on apical middle of all the segments above; venter fusco-ferruginous, clothed with pale pubescence.

Chapada (April to October). This may prove to be *Mayri* Kohl.

48. **M. Pertyi** Dalla Torre (Catal. Hym., viii, p. 72; *bucephalus* || Smith, Brit. Mus. Cat. Hym., iii, p. 53).—♀.—Length 10 mm.—Head very large, subglobose, much broader than thorax, densely punctured, posterior angles rounded; cheeks beneath with a sharp longitudinal carina; eyes small, round, convex, shining, minutely netted; thorax above closely punctured, gradually narrowed posteriorly,

not constricted medially, sides sparsely punctured; metathorax obliquely declivous, lateral margin without teeth, anterior angles of mesothorax acute; legs stout, middle tibiae with two short spines on outer edge and one large spine at tip, the posterior pair have three larger spines on outer edge and a long sharp one at tip; basal segment of abdomen broader posteriorly, subnodose, constricted into a depressed band at apex, before which is a transverse row of six or seven rather large acute teeth.

Black, with erect black hair, face and cheeks silvery; an oblique, rather obscure silvery line behind each eye, confluent on occiput; two rather obscure silvery spots on posterior margin of mesothorax, confluent with the two narrow, silvery, longitudinal lines on metathorax; a triangular silvery spot on each side of thorax above middle coxae; calcaria pale; sides of basal segment of abdomen and the depressed apical band silvery; a round, smooth, polished, ferruginous spot on each side of disk of second segment above; segments 3-5 silvery, interrupted medially; venter tinged with ferruginous.

Santarem. (February, November). Two specimens.

49. **M. stygia** Smith (Brit. Mus. Cat. Hym., iii, p. 47).—♀.—Length 16 mm.—Head subquadrate, nearly as broad as thorax, and as well as the latter coarsely sculptured; eyes round, strongly convex, smooth and polished; thorax square anteriorly and strongly constricted behind the very prominent subacute lateral tubercle or spine; anterior angles and sides of prothorax strongly tuberculate; metathorax abruptly truncate behind, the flanks rugose, shining; abdomen oblong-ovate, first segment sessile with base of second, its upper surface narrow and depressed, sparsely covered with short longitudinal carinae or ridges, its anterior face broadly flattened; second ventral segment deeply and coarsely and apical segment finely punctured.

Black, opaque, the pubescence coarse and entirely black; second segments above with a medium sized, rounded, polished, reddish-yellow spot on each side of disk, and a silvery pubescent spot on each side of basal segment at apex above, sometimes obsolete or wanting, and also on each side of segments 3-6 above; lateral margin of second segment beneath and apical margin of that and remaining segments fringed with whitish pubescence; calcaria pale; one specimen has faint indications of two pale stripes on metathorax and a spot on each side of mesothorax at base.

Santarem. Two specimens. Probably the same as *fenestrata* Klug. Specimens will probably occur without any pale markings except the two rounded, dull reddish yellow spots on second segment. The shape of the thorax and of first segment of abdomen is much as in *myops* Burm., except that the sides of the thorax are more prominently spinose. Closely resembles *serena* Gerst., which, however, has the sides of the apical segments of the abdomen broadly golden pubescent; otherwise the two species are very much alike.

50. **M. myops** Burm., (Brasil, Mutill., 1854, p. 6).—♀.—Length 11-19 mm.—Form robust, black; head not broader than thorax, transversely subquadrate;

anterior angles of thorax spinose, and on each side at base of mesothorax a prominent subacute spine; first segment of abdomen broad at apex, anterior face flat, the apex depressed, band-like, with a subapical row of short obtuse teeth; two short longitudinal lines on vertex over eyes, two slender stripes on posterior half of thorax, lower portion of flanks, sides of first abdomen segment, two stripes on apical half of abdomen, beginning on apical margin of second segment, and extreme lateral margin of the segments, silvery ochraceous pubescent; legs and venter with short and long pale pubescence, more dense on apical margin of second and following segments; second segment above covered with rows of short longitudinal carinæ, and with two rather large, transversely rounded, reddish-yellow, shining spots behind the middle; calcaria pale.

Chapada. Common. This closely resembles *perspicillaris* Klug, which, however, has the head larger and more convex, with two large, rounded, pale spots on vertex; the thoracic vittæ are broadly interrupted at base of mesothorax; the two shining red spots on second abdominal segment are larger and rounded, not transverse, and instead of the two slender stripes on the apical segments, seen in *myops*, segments 3-6 are silvery white, with a broad central black stripe; there are no pale pubescent spots on apical margin of second segment.

51. **M. infausta** ♀.—Length 20 mm.—Large, robust; head subquadrate, nearly as broad as thorax, coarsely punctured; eyes rounded, very convex, smooth and polished; thorax square anteriorly and strongly constricted behind the prominent, subacute, lateral tubercle or spine; anterior angles of the thorax tuberculate; metathorax abruptly declivous posteriorly, the sides rugose, shining; abdomen ovate, first segment sessile with base of the second, depressed above, anterior face of the segment broadly flattened, with the upper margin spinose; second segment covered with short longitudinal carinæ; apical segment finely punctured.

Black, opaque, with black pubescence; mouth, cheeks, under surface of body and legs with whitish pubescence; a narrow, uninterrupted silvery stripe on each side of thorax above, extending to apex of metathorax, but not quite reaching anterior margin of thorax; a silvery-white patch on lower portion of flanks of metathorax; calcaria pale; a stripe on each side of first abdominal segment, and a narrow stripe on each side of abdomen beginning at apex of second segment and extending to apical segment, all of white pubescence; second segment above with a narrow, transverse, somewhat oblique, polished, dull yellowish spot on each side of disk; sides of second segment beneath and apical margin of that and the following segments fringed with white pubescence.

Minas, Car. Two specimens. Much the same form as *myops*, but larger, head entirely black, the white pubescent stripes on thorax extended forward and reaching nearly to anterior margin of prothorax, and the two smooth spots on second abdominal segment are slender and transverse, like those of *indica*.

52. **M. bellula** ♀.—Length 10–13 mm.—Head narrower than thorax; eyes rounded, very convex, smooth and polished; thorax quadrate anteriorly, rapidly narrowed posteriorly, longer than broad; metathorax abruptly truncate behind, lateral margin serrate, flanks excavated and tuberculate above; abdomen ovate, first segment very broad, sessile with base of second segment, scarcely constricted at tip, the apical margin narrowly depressed like a band, anterior face of the segment broadly flattened; second segment above covered with rows of short, longitudinal carinæ; apical segment finely punctured.

Black, opaque, pubescence coarse and black, that on face, cheeks, under surface of body and legs silvery white; a broad stripe on each side of head above, a narrow uninterrupted stripe on each side of thorax above, extending from anterior margin of prothorax to apex of metathorax, spot on each side of basal segment of abdomen and sides of segments 3–5, all of silvery-white pubescence; lower portion of flanks of metathorax silvery; second segment of abdomen above with an oblique yellow spot on each side of its middle portion; calcaria white.

Chapada. (April to November). This may be *obliquata* Klug, but the head above has two silvery stripes and those on the thorax are entire.

53. **M. larvata** Klug (Nova Acta Cæss. Cur. Nat., x, p. 310, pl. xxii, fig. 6).—♀.—Length 17 mm.—Form robust; head large, quadrate, not broader than thorax, broad behind eyes, lateral posterior angles rounded, the sides beneath sharply carinate, unarmed; eyes small, round, very convex; thorax rather short, coarsely sculptured, fiddle-shaped, constricted in front of the prominent metathoracic spiracles, anterior angles acute, a long acute incurved spine on each side of mesothorax immediately in front of the constriction; metathorax rounded above, abruptly declivous behind, where the surface is depressed and almost smooth, lateral margin subserrate, the flanks beneath the constriction deeply transversely excavated, smooth and polished; legs robust, tibiæ strongly spined; abdomen ovate; first segment short and broad, anterior face broad and flat, the apex depressed band-like, sessile with base of second segment and serrate anteriorly; second segment sparsely covered with short longitudinal carinæ, the two rounded nude spots shining, not large, placed slightly behind the middle, and having a few scattered short longitudinal carinæ on their surface; apical segment not flattened, roughened at base; second ventral segment strongly and sparsely punctured, pinched and longitudinally carinate on basal middle.

Velvety black, the pubescence short and black, with longer scattered black hair; a round spot behind each eye, another on each side of mesothorax posteriorly, a short stripe on each side of metathorax at base, lower margin of flanks, a transverse spot on each side of first abdominal segment at apex, a broad stripe on extreme lateral margin of second segment, and a band or spot on each side of segments 3–5, all of dense appressed silvery-white pubescence; legs with pale pubescence, calcaria white; the two smooth spots on second abdominal segment above pale yellowish; apical margin of ventral segments 2–5 narrowly silvery and fringed with white pubescence.

Santarem. Two specimens.

54. **M. spinosa** Swed. (Klug, Nova Acta Cæs. Nat. Cur. x, p. 309, pl. xxii, fig. 4).—♀.—Length 18 mm.—Head subquadrate, not broader than thorax, extended behind the eyes about their diameter, posterior angles rounded, posterior margin of cheeks sharply carinate; eyes small, rounded, polished, very convex; thorax shaped much as in *larvata*, and when viewed from above each side appears to have four obtuse spines, including the prominent stigmatic tubercles, the one on anterior angles of prothorax acute, that between the two spiracles longer, obtuse and most prominent; metathorax coarsely punctured, the stigmatic tubercles spiniform; abdomen formed and sculptured as in *larvata*.

Velvety-black, the pubescence black and suberect; a spot on the front between the eyes, clypeus, lateral posterior margin of mesothorax, metathorax except median black stripe, flanks, sides of first abdominal segment broadly, and segments 3 and following except a rather broad central stripe, all of dense appressed pale golden pubescence; second segment above with two large ovate shining orange-ferruginous spots, almost meeting on the disk; calcaria pale; legs and venter clothed with pale golden sericeous pubescence, more dense on coxæ and apical margin of segments 2-5.

Rio de Janeiro (November). Two specimens.

55. **M. frigidula** ♀.—Length 8 mm.—Slender; head transverse, narrowed behind eyes, which are unusually large, rounded, convex and polished; thorax coarsely and densely sculptured, slightly narrower than head, gradually narrowed posteriorly, the metathorax obliquely declivous, and at the summit at base a short, smooth, transverse carina, and on each side a rather long longitudinal groove; lateral margin of thorax not toothed or serrate; legs rather stout; abdomen with first segment nodose, beyond which it is oblong-ovate, the second segment depressed, closely deeply punctured, the apical margin shining; beneath, the second segment is sparsely punctured and shining.

Black, the entire insect above has, in certain lights, a frosty appearance from the pale glittering pile, which is more dense on head, sides of thorax, legs, apex of first segment of abdomen and on segments 3-5; apical segment with long pale hair; second segment with two large irregular pale yellowish spots, margined with brown-ferruginous; calcaria short, stout, pale.

Santarem. One specimen.

56. **M. bellica** ♀.—Length 8.5-10.5 mm.—Rather slender; the head and thorax coarsely sculptured; head transverse, not broader than thorax, the space behind eyes narrow; eyes prominent, convex, polished; thorax slightly narrowed in front, gradually so behind, the lateral margin not constricted, unarmed, the metathorax rounded behind; legs slender; abdomen ovate, first segment nodose, second segment above finely and densely punctured, the smooth pale spots sparsely punctured and polished; second segment beneath sparsely punctured and shining.

Deep black, opaque, the pubescence black; flanks of metathorax with silvery sericeous pile; calcaria white; the two smooth spots on second abdominal segment longitudinally ovate, pale yellow; a silvery pubescent spot on apical middle of segments 3-5; extreme sides of segments 2-4 with silvery hair; venter with sparse, pale, glittering hair, more dense on apical margin of segments 2 and 3.

Chapada. This species is deep opaque black, except the two oblong ovate yellow spots on second segment and the silvery stripe on middle of apical segment.

57. **M. diophthalma** Klug (Nova Acta Cæs. Nat. Cur., x, p. 318, pl. xxiii, fig. 6).—♀.—Length 10–13 mm.—Slender; head transverse, as broad as thorax; eyes rounded, very convex; thorax gradually narrowed to apex which is subcompressed, longitudinally rugose, lateral margin unarmed, anterior angles not acute; abdomen deeply, rather sparsely punctured; first segment subnodose and subconstricted at apex, the two nude shining rounded spots on second segment with a few sparse deep punctures; second ventral segment polished, sparsely punctured, convex at base.

Velvety black, the pubescence black, erect or suberect and scattered; a band between the eyes, a stripe on each side of meso- and metathorax above, broad on the former, lower half of flanks, a spot on each side of basal segment of abdomen above, extreme lateral margin of second segment, a spot on lateral apical corner of segments 2–4, and a spot on apical middle of segments 2–6, small on 2, all of pale golden or silvery pubescence; the two nude spots on second segment above yellowish; legs with pale glittering pubescence; calcaria pale; ventral segments 2–4 fringed at apex with pale pubescence.

Santarem; Chapada (April). A specimen from Chapada has no pale band on the head, and is larger; otherwise there appears to be no difference.

58. **M. bellicosa** ♀.—Length 9–10 mm.—Form and sculpture of *bellica*, except that the second segment of abdomen is more coarsely punctured and the eyes more prominent.

Black, with short black pubescence; head with golden pubescence above, paler on sides; a pale golden pubescent stripe on each side of thorax above, not reaching prothorax; lower part of flanks silvery, the upper part smooth and polished; legs with pale glittering pubescence, calcaria white; a spot on disk of first segment of abdomen and on apical middle of the second, silvery pubescent; second segment above with two large elongate shining blood-red, sparsely punctured spots, narrowed anteriorly and reaching the basal margin; apical segments with pale glittering pubescence, extreme sides of second and following segments, as well as the venter, with silvery pubescence.

Chapada. This is larger than *bellifera* to which it is allied; the head, however, is golden, and the first segment of the abdomen above has a pale spot on disk and another on apical middle of second; the red spots on second segment have the sides less parallel, while the black stripe does not extend beyond the silvery spot on apex of the segment.

59. **M. bellifera** ♀.—Length 6–7 mm.—Form rather slender; head as broad as thorax, transverse; eyes subovate, prominent, convex, approaching pos-

terior margin of head, but placed at some distance from base of mandibles; thorax elongate, sides parallel anteriorly, but gradually narrowed posteriorly and subcompressed, sides unarmed; metathorax rounded posteriorly and abruptly declivous; abdomen ovate, first segment subnodose, not distinctly denticulate before apex; second segment convex, sparsely punctured and shining, except the black median stripe which is opaque; venter sparsely and finely punctured.

Black, with scattered erect black hair; head silvery pubescent, except a spot behind eyes and a large spot on top of vertex, which are brown; mandibles ferruginous, tips black; thorax above with a broad silvery pubescent stripe on each side, extending from anterior margin to apex of metathorax, where it is narrowed; flanks densely silvery except upper margin which is nude and shining; legs with silvery sericeous hair, calcaria white; abdomen with apex of first segment white, apical margin of segments 2-5 fringed with silvery pubescence, interrupted medially on these segments above; second segment with two elongate, rather broad, parallel, smooth, shining, ferruginous spots, extending from basal margin, where they are narrowed, nearly to apical margin of the segment; when viewed from above, a deep black opaque stripe extends from base of second segment, where it is broadest, to apex of the abdomen; sides of second segment sometimes brown or brown-ferruginous; apical segment black, silvery at sides; venter brown. In one specimen the second segment is orange-ferruginous, except the opaque black stripe on middle above, and the head and thorax are tinged with dull red.

Chapada. This may be a variety of *lusca* Klug, but the ornamentation of the abdomen seems different. Compared with Klug's figure, the spots on second segment of abdomen are more parallel, the inner margin being straight and not sinuate, and not inclined to become confluent; while the black median stripe extends from base of second segment to apex of the abdomen without interruption.

60. **M. latevittata** ♀.—Length 5-13 mm.—Subrobust; head transverse, slightly narrower than thorax; eyes small, convex, polished, placed near to posterior margin of head; thorax elongate, square in front, gradually narrowed behind the middle, the metathorax rounded behind and abruptly declivous, sides of thorax unarmed; abdomen ovate, convex, first segment depressed, scarcely constricted at apex; pygidium longitudinally aciculate; venter rather closely punctured.

Velvety black, with long, scattered, erect black and pale hair; head densely silvery, tinged with golden above, sometimes a black spot or line near posterior margin of vertex; scape silvery; thorax above with a broad silvery pubescent stripe on each side extending from anterior margin to apex of metathorax; flanks with dense silvery pubescence, except upper margin posteriorly, which is nude, smooth and polished; legs with silvery pubescence, calcaria white; abdomen velvety black, with long pale hair at base and sides; first segment with a small silvery spot, sometimes wanting, on each side at apex; second segment with a transverse, slightly oblique, smooth, yellow spot on each side towards apical margin, and generally a more or less distinct, smooth, yellow spot on each side on basal margin, varying in shape from elongate to a mere dot, or obsolete; a silvery pubescent spot on apical middle of segments 2-5, the lateral apical mar-

gin of these segments densely fringed with silvery pubescence; apical segment sometimes entirely black, the pubescence at the sides generally more or less pale; venter with long thin pale hair, more dense on apical margin of segments.

Chapada. Common. Closely resembles *demissa*; but that species has no silvery spot on apical middle of segments 2 and 3; the smooth spots towards apex of second segment in that species are transversely square, not at all oblique, and are of a blood-red color.

61. **M. demissa** ♀.—Length 4-8 mm.—Very much like *latevittata*, but differs as follows: the head is more golden, the pubescence more dense, the sides of first abdominal segment is broadly silvery, the two smooth spots towards apex of second segment are transversely quadrate, not at all oblique, and blood-red in color; the two spots on basal margin are either very small or entirely wanting; only segments 4 and 5 have a silvery pubescent spot on apical middle above.

Chapada.

62. **M. atripes** Smith (Brit. Mus. Cat. Hym., iii, p. 45).—♀.—Length 15-20 mm.—Head and thorax rugose; head not broader than thorax, cheeks longitudinally carinate; eyes rounded, very convex; thorax elongate, narrowed and subcompressed posteriorly, slightly narrowed anteriorly, the anterior angles subacute; lateral margin dentate, rather deeply notched on each side in front of the prominent stigmatic tubercles, and anterior to the notch a prominent obtuse tubercle; metathorax rounded above; the flanks transversely excavated beneath the notched sides; the first abdominal segment transversely nodose and subconstricted at apex; second segment above with scattered punctures, the nude spots polished and rounded or subquadrate, the basal two smaller; second ventral segment deeply and sparsely punctured, polished.

Opaque velvety-black, with black pubescence; the extreme lateral margin of second abdominal segment, a spot on lateral apical corners of segments 2-4 and a narrow line on apical middle of segments 4 and 5, pale golden or silvery pubescent; legs with black pubescence, calcaria fuscous or black; the four nude spots on second segment above orange-ferruginous or dark red.

Santarem; Mararu (April). Probably the same as *4 pustulata* Klug.

63. **M. 4-notata** Klug (Nova Acta Cæs. Nat. Cur., x, p. 316, pl. xxiii, fig. 3).—♀.—Length 16-20 mm.—Slender; head transverse; not broader than thorax; eyes rounded, very convex; thorax elongate, gradually narrowed to apex, deeply notched on each side of mesothorax posteriorly, anterior to which is a prominent obtuse spine, the metathoracic stigmatic tubercles prominent; the metathorax rounded above; subcompressed laterally; first abdominal segment small, narrow, nodose and subconstricted at apex; second segment with the four nude shining spots irregularly rounded or subquadrate, sparsely punctured, the posterior pair very large, the anterior pair smaller; second ventral segment shining, sparsely and deeply punctured, slightly pinched and longitudinally carinate on basal middle, the basal segment with a prominent median carina.

Black, with erect black pubescence; the scape golden sericeous; a band across

mesothorax posteriorly, metathorax except a broad black median stripe and a slender one on either side of it, flanks of metathorax, coxæ, spot on each side of first abdominal segment, lateral margin and apical corners of second segment, spot at sides of segments 3-5, triangular spot on apical middle of 4 and 5, sometimes a dot on apical middle of 2 and 3, most of apical segment, and apical margin of ventral segments 2-5, all densely golden ochraceous pubescent; second segment above with four nude orange-yellow spots; calcaria pale; legs and venter clothed with pale golden ochraceous pubescence.

Rio de Janeiro (November); Minas, Car.; San Salvador, Pernambuco (August).

64. **M. inermis** Klug (Nova Acta Cæs. Nat. Cur., x, p. 317, pl. xxiii, fig. 4). — ♀.—Length 13-15 mm.—Head transverse, as broad as thorax, subquadrate when viewed in front; eyes small, round, convex and polished, placed near posterior margin of head, but widely removed from base of mandibles; thorax subquadrate anteriorly, gradually narrowed behind mesothorax, sides unarmed; a short deep groove with carinate edges on each side at base of metathorax, the latter rounded above and obliquely declivous behind; first segment of abdomen small, subnodose, the second large, convex, the smooth spots sparsely punctured and shining, as is also the segment beneath.

Velvety black; head and anterior half of thorax entirely black with black pubescence; posterior margin of mesothorax, confluent with two broad stripes on metathorax, and the flanks, entirely pale golden pubescent; the legs with pale golden pubescence, calcaria pale; sides of segments 2 and 3, and the whole of segments 4 and 5, pale golden; second segment with two very large, irregularly rounded, smooth orange-ferruginous spots a little behind the middle, and two smaller spots of same color on basal margin; venter with sparse pale hair, fringed at apex of segments 2-4.

Rio de Janeiro; Minas, Car. Four specimens. Resembles *4-notata* Klug, but the thorax is unarmed. I had named this handsome species *optabilis*, all the specimens having the head entirely black and the two red spots on posterior part of the second abdominal segment much larger than represented in Klug's figure, and quite as large as those in *4-notata*; they, however, do not differ from a specimen, labelled *inermis* Klug, kindly sent me by Mr. Ernest André.

65. **M. dorsovittata** ♀.—Length 10 mm.—Head small, transverse; eyes small, round, convex, finely netted; thorax with large coarse punctures, subcompressed and gradually narrowed posteriorly, anterior angles rounded, sides not dentate; abdomen ovate, with large deep punctures on second segment, which is gibbous at base above; first segment small, narrow, quadrate, depressed; apical segment finely longitudinally aciculate.

Velvety black, with long erect or suberect black hair; head in front and cheeks golden ochraceous; a narrow stripe on disk of thorax extending the entire length, the flanks except upper margin, a spot on first abdominal segment

above, a quadrate spot on disk of segments 4 and 5, and a spot on extreme sides of segments 2 and 3 at apex, all of dense ochraceous pubescence; two large rounded, almost contiguous, dark red, shining spots on middle of second segment above, and two smaller elongate oblique spots of same color at base, nearly confluent with the larger ones; sides of apical segments and beneath with long pale hair; legs with ochraceous pubescence and long pale hair on femora, calcaria black.

Brazil (no definite locality). One specimen. Same form as *centrovittata* (No. 35), but separated at once by the large shining red spots on second segment of abdomen. Closely related to *virginalis* Gerst.

66. **M. quadrum** Klug (Nova Acta Caes. Nat. Cur., x, 320, pl. xxiii, fig. 8). ♀.—Length 10-11 mm.—Small, coarsely rugose; head transverse, not broader than thorax, posterior lateral angles acute, posterior margin of cheeks carinate; eyes rounded, very convex, polished; thorax ovate, narrowed behind the middle, the metathorax rounded above, abruptly declivous behind, flanks flat, smooth and polished; prothorax tuberculate on anterior lateral margin; sides of pro- and mesothorax coarsely irregularly serrate, not notched; first abdominal segment transversely nodose and constricted at apex; the four nude spots on second segment above shining, deeply and sparsely punctured, the apical pair large and rounded, those at base smaller, ovate, but never minute, these spots sometimes almost confluent laterally; apical segment finely granulated; second ventral segments deeply punctured, not pinched at base, the first segment with a prominent compressed tooth on middle.

Black, opaque, the pubescence black; head, broad stripe on sides of thorax its entire length, lower margin of pleura, a dot on sides of first abdominal segment, extreme lateral margin of second segment, line on lateral apical margin of segments 2-5, and spot on apical middle of same, all griseous or silvery pubescent; antennæ and legs with pale glittering pubescence; calcaria pale; the four nude spots on second segment above sanguineous; venter black, sometimes more or less tinged with rufo-castaneous; the pubescence silvery, dense on apical margin of the segments.

Chapada.

67. **M. chapada** ♀.—Length 10-13 mm.—Much the same form as *latevittata*, but with the metathorax less gibbous, being obliquely declivous posteriorly, and the sides of thorax more abruptly narrowed behind; apex of first segment of abdomen more constricted and band-like, with subapical margin serrate.

Velvety black, with scattered erect black hair; those on mouth parts brown; head generally with a longitudinal tuft of fulvous or golden pubescence on vertex, sometimes wanting; a rather broad fulvous or dark golden pubescent stripe on each side of thorax above, commencing at posterior margin of prothorax and extending to apex of metathorax, where it is paler; lower margin of flanks densely silvery pubescent, upper portion nude and polished; base of legs and femora with long pale hair, longer on under side; tibiæ and tarsi with black pubescence, more or less pale on the under side of tibiæ; calcaria pale; a spot or

stripe on each side at apex of first abdominal segment, a spot on apical middle of segments 2-5, forming a stripe, a double line on extreme sides of segment 2, a spot on sides at apex of segments 2 and 3, and fringe on apical segment, all of silvery pubescence; a small, more or less oblique, subpyriform, smooth, polished, yellow, rarely reddish, spot on each side of second segment towards apex, and two narrow longitudinal spots of same color at base, placed opposite to the silvery stripes on first segment; venter shining, with apical margin of segments 2 and 3, sometimes 4, fringed with whitish pubescence; apical segment with black pubescence.

Chapada. Common. Recognized by the fulvous stripes on thorax, and by the two posterior pale shining spots on second abdominal segment being more or less oblique and subpyriform.

68. **M. criza** ♀.—Length 9-13 mm.—Differs from *chapada* as follows: vertex with a transverse line or spot of silvery pubescence between the eyes; stripes on thorax above narrower, silvery pubescent, and extending only a short distance forward on the mesothorax; pubescence on legs mostly pale; the smooth shining red or yellow spots on second abdominal segment larger and broader, the two posterior ones subquadrate or rounded, not oblique; the extreme lateral margin of segment 4 has a silvery pubescent spot as well as 2 and 3.

Chapada. Common.

69. **M. compar** André (Bull. Soc. Ent. de France, 1895, p. cccxxi).—♀.—Length 10-13 mm.—Much like *criza*, but differs as follows: the vertex has a silvery subarcuate band from eye to eye; the slender silvery stripes on thorax generally extend forward nearly or quite to prothorax; the two smooth orange-red spots on base of second segment of abdomen are round, not elongate, and those on posterior part transversely quadrate or rounded and placed closer together; segments 4 and 5 only have a silvery pubescent spot on apical middle,

Corumbá.

70. **M. vagabunda** Smith (Descr. New Spec. Hym. Brit. Mus., 1879, p. 214). ♀.—Length 11-14 mm.—Rather slender; head transverse, not broader than thorax; eyes round, prominently convex; thorax elongate, considerably narrowed behind the middle, slightly notched in front of the metathoracic spiracles; metathorax rounded above, not abruptly declivous behind, subcompressed and flattened laterally, the lateral edges subserrate; first abdominal segment small, transversely subnodose and subconstricted at apex; the four small, smooth, raised spots on second segment above polished and with a few scattered punctures, the apical spots transverse, those at base narrow, longitudinal; apical segment longitudinally striated; first ventral segment with a prominent, compressed, truncated, dentiform carina on middle, second segment with large deep scattered punctures.

Velvety black, the pubescence very short, appressed and black; a spot on vertex, two narrow stripes on metathorax extending slightly on base of mesothorax, a stripe on lower margin of flanks, a spot on apical corners of first abdominal segment, extreme lateral margin of second, spot on lateral apical corners of segments 2-4, and spot on apical middle of 2-5, forming a central longitudinal

stripe, all silvery-white pubescent; apical segment more or less yellowish pubescent; legs with black pubescence, slightly mixed with pale, calcaria pale; the four nude spots on second segment above yellow or orange-yellow; venter fringed at apex of the segments with pale pubescence.

Chapada. This may not be correctly determined, although it agrees tolerably well with Smith's description.

71. **M. spectabilis** Gerst. (Archiv. f. Naturg., xl, 1873, p. 73).—♀.—Length 13-16 mm.—Same form as *graphica* Gerst. (No. 80), but differs as follows: the cheeks up as far as the eyes are silvery pubescent, and a subarcuate silvery or pale golden band on vertex from eye to eye; the silvery ochraceous pubescent stripes on thorax do not reach the posterior margin of prothorax and are not interrupted at base of metathorax; the pubescence of the legs is mostly pale, while in *graphica* it is mostly black, except on coxæ and femora beneath; abdomen beneath more thickly clothed with whitish pubescence; the smooth spots on second segment above are often more or less red or orange-red; otherwise the two species are very much alike.

Chapada. Common. Compared with *compar* André, this species is larger, and segments 2-5 have each a silvery pubescent spot on apical middle.

72 **M. bivittata** Gerst. (Archiv. f. Naturg., xl, p. 72).—♀.—Length 15-16 mm.—Head transverse, not broader than thorax; eyes rounded, convex, polished; thorax rounded on sides anteriorly, gradually narrowed to apex, unarmed, the anterior margin straight, the lateral angles obtuse, sides notched immediately in front of the metathoracic spiracles; metathorax rounded above, rather abruptly declivous behind, the flanks excavated and polished; first abdominal segment small, transverse and subnodose at apex; the four nude spots on second segment above transversely rounded, sparsely punctured, the anterior pair smaller, ovate; apical segment longitudinally rugose; first ventral segment with a prominent truncated carina on middle, the second segment deeply and sparsely punctured, and subcarinate on basal middle.

Velvety black, the pubescence black; two narrow stripes on head between the eyes, a narrow continuous stripe on each side of thorax, extending from near anterior margin of mesothorax to apex of metathorax, lower portion of flanks of metathorax, spot on each side of first abdominal segment, extreme lateral margin of second, a spot on lateral apical margin of segments 2-4 and sometimes 5, and a spot on apical middle of 3-5 forming a central stripe, all dense silvery-white pubescent; cheeks and legs with scattered pale glittering pubescence, that on four posterior tibiæ more or less black; calcaria pale; the nude shining spots on second segment above orange-ferruginous; the venter with pale pubescence, dense on apical margin of segment 2-4.

Chapada.

73. **M. estrella** ♀.—Length 12-14 mm.—Very closely allied to *bivittata*, but at once separated by the thorax not being notched before the metathoracic

spiracles; the four nude spots on second segment above are smaller and pale yellow, the posterior pair rounded and not at all transverse; otherwise much the same.

Corumbá. This agrees with Gerstaecker's description of *bivittata* quite as well as the preceding species, except in the shape and color of the nude spots on the second abdominal segment, no mention being made of the notch on sides of thorax.

74. **M. duplicata** Gerst. (Archiv. f. Naturg., xl, p. 72).—♀.—Length 14–16 mm.—Same form and sculpture as *bivittata*. Black, the pubescence black; head ochraceous above, with a broad central black stripe; mouth and cheeks with pale ochraceous pubescence; mesothorax with a broad oblique stripe on each side, a narrow stripe on each side of metathorax, and a large spot on lower margin of flanks, dense ochraceous pubescent; legs clothed with ochraceous pubescence, calcaria pale; first abdominal segment at sides, double line on extreme side of second segment, spot on lateral apical corners of segments 2–4, and a spot on apical middle of segments 2 or 3–5, silvery-ochraceous pubescent; second segment above with four dark sanguineous, smooth, shining, sparsely punctured spots, the posterior pair rather large, somewhat transversely subquadrate, the basal pair smaller and rounded; venter with apical margin of segments 2–4 densely fringed with silvery pubescence.

Sao Joao do Monte Negro. Two specimens. The ochraceous pubescent stripe on mesothorax is shaped much as in *emulata*, but in that species it is continuous with that on metathorax.

75. **M. ocellaris** Klug (Nova Acta Cæs. Nat. Cur. x, p. 321, pl. xxiii, fig. 9). ♀.—Length 3–6 mm.—Small, form much the same as in *demissa* (No. 61), which it very much resembles, but may be separated as follows: the head above has a large black median spot; the two posterior red spots on second abdominal segment above are large and rounded, not transverse, and there are two oblique ovate spots at base (sometimes mere dots in *demissa*), and there is a short silvery-pubescent stripe on apex of abdomen, composed of a spot on apical middle of segments 3–5.

Chapada. Two specimens.

This and the eight preceding species, having the head more or less ornamented with silvery pubescence, closely resemble each other in the markings of the thorax and abdomen, and may be separated as follows:

Thorax with fulvous or golden pubescent stripes 67. **chapada**.

Thorax with two silvery or pale ochraceous pubescent stripes.

Head black, with a pale pubescent spot on vertex between the eyes.

Second segment of abdomen with the red or yellow spots subquadrate and the basal ones elongate-ovate; lower part of flanks of thorax broadly silvery pubescence..... 68. **crixa**.

Second segment with apical spots smaller, transverse, the basal ones linear; lower part of flanks of metathorax narrowly silvery pubescent.

70. **vagabunda.**

Head black, with a transverse or arcuate silvery pubescent band between the eyes.

Abdomen above with a silvery pubescent spot on apical middle of segments 4 and 5 only69. **compar.**

Abdomen above with a silvery pubescent spot on apical middle of segments 2-5 forming a central stripe71. **spectabilis.**

Head with two suborbital silvery or golden pubescent stripes.

Thorax notched on each side about the middle.

Stripes on mesothorax broad, oblique, not continuous with slender stripes on metathorax74. **duplicata.**

Stripes on mesothorax slender, straight and continuous with those on metathorax72. **bivittata.**

Thorax not notched laterally.

Thoracic vittæ narrow, not reaching anterior margin of thorax; spots on second abdominal segment yellow73. **estrella.**

Thoracic vittæ broad, reaching anterior margin of thorax; spots on second segment sanguineous75. **ocellaris.**

76. **M. indica** Linn.=*diadema* Fabr. (Klug, Nova Acta Cæs. Nat. Cur., x, p. 314, pl. xxii, fig. 12).—♀.—Length 16-18 mm.—Head and thorax rugosely punctured; head transverse, not broader than thorax; eyes small, round, convex; thorax gradually narrowed posteriorly, the stigmatic tubercles prominent, and immediately in front of the metathoracic spiracles the sides are broadly notched, and between the notch and the anterior tubercles they are obtusely rounded and subserrate; metathorax rounded above and sloping rapidly to apex, the flanks rugosely punctured on upper portion; apex of first abdominal segment transversely subnodose, nearly as broad as base of second segment, subconstricted at tip; the nude polished spots on second segment above linear, those at base longitudinal, the apical two transverse; first ventral segment with a strong acute tooth on middle; second segment deeply and unevenly punctured, longitudinally carinate on basal middle.

Velvety-black, the pubescence short, dense and appressed, except a few scattered erect hairs; a silvery-white pubescent, arcuate band on vertex from eye to eye; cheeks with silvery pubescence; a slender silvery pubescent band on each side of metathorax and extending about half way up on mesothorax; lower portion of pleura silvery-white pubescent; legs with pale glittering pubescence, calcaria pale; a spot on each side of first abdominal segment at apex, extreme lateral margin of second segment, a spot on lateral apical corners of segments 2-4, and a spot on lateral middle of 2-6, forming a central stripe, all silvery-white pubescent; the four linear nude spots on second segment pale yellow; venter with pale glittering pubescence, the apical margin of segments 2-4 fringed with silvery pubescence.

Pará; Benevides (July).

77. **M. solemnis** ♀.—Length 20 mm.—Rather slender; head not broader than thorax, transverse; eyes small, round, convex, placed about half their di-

ameter from posterior margin of head, and twice that distance from base of mandibles; cheeks and thorax at sides coarsely reticulated; thorax elongate, narrowed posteriorly, the metathorax rounded behind; the stigmatic tubercles prominent, forming, with the large tooth on each side about the middle, three obtuse prominent tubercles; abdomen long, ovate, first segment subquadrate, subnodose, almost as broad as base of second segment, subconstricted at apex, the four narrow smooth polished lines on second segment impunctate; second ventral segment deeply but not closely punctured.

Velvety black; head with a small arcuate pale golden line on disk above; a narrow silvery pubescent stripe on each side of thorax above, straight on metathorax, but curved outwardly and broadened forward of posterior tubercle, but not reaching the prothorax; viewed laterally the stripe is regularly arched; flanks of metathorax with lower half silvery; legs with scattered pale pubescence; calcaria black; sides of first segment silvery, and a silvery spot on apical middle and on extreme sides of segments 2-5, forming three stripes, one on middle and one on each side; sides of second segment with a double line of pale pubescence; on the apical third of second segment two narrow, transverse, smooth, polished, dull yellow lines, nearly meeting on disk, and at base two narrow longitudinal lines of same color, each placed opposite the silvery spot on sides of first segment, and reaching nearly the middle of the segment; apical segment with a yellowish pubescent spot on middle; venter with segments 2-4 fringed at apex with pale pubescence.

Minas, Car. This is much like *indica*, but easily separated by the prominent subacute tooth on each side of the thorax (between the two stigmatic tubercles which are also prominent), not seen in *indica*; the pale thoracic stripes are broader and dilated anteriorly, and the smooth pale transversely linear spots or lines on second segment of abdomen are longer and more slender; while the calcaria are black. In *indica* the head has a broad conspicuous arcuated silvery pubescent band from eye to eye.

78. *M. remulata* ♀.—Length 20-22 mm.—Same form as *graphica* Gerst. Velvety black; cheeks up as far as the eyes silvery or pale golden pubescent; an arcuate band on vertex from eye to eye of golden pubescence; thorax with two broad golden or fulvous pubescent stripes, broadened on each side of mesothorax, slightly curved and narrowed to a point on prothorax; lower margin of flanks densely pale golden pubescent; the legs with pale pubescence, black at tips of femora; calcaria pale; sides of first abdominal segment pale golden pubescent; two narrow, longitudinal, smooth polished, yellow spots at base of second segment, and two narrow, transverse, almost contiguous spots of same kind and color, slightly recurved on discal end, near apex of this segment; a spot on apical middle of segments 2-5, a spot on extreme sides of 2 and 3, and sometimes obscurely on 4, lateral margin of segment 2 and apical margin of ventral segments 2 and 3, all of pale golden pubescence; apical segment above pale golden, black on the sides.

Chapada. A larger and stouter species than *indica*, and easily

distinguished by the pubescent stripes on thorax being golden and broadened on each side of mesothorax, where they are slightly curved inward and narrowed to a point on prothorax; the subapical transverse smooth yellow spots or lines on second segment of abdomen above are rather broader and slightly turned up on the inner ends; the abdomen beneath has only two whitish pubescent bands.

79. **M. vivata** ♀.—Length 10-14 mm.—Head transversely subquadrate, broader than thorax; eyes small, smooth, convex, removed from posterior margin quite their diameter; face broad, cheeks carinate but not toothed; thorax short, broad in front, narrowed behind mesothorax, sides not constricted or notched, metathorax round and abruptly declivous behind; upper half of flanks of metathorax flat, smooth and shining; abdomen short ovate, first segment subnodose, depressed above, the apex narrowly constricted; the smooth spots on second segment sparsely punctured, shining; pygidium finely longitudinally aciculate; second ventral segment strongly and sparsely punctured, shining.

Velvety black, pubescent, with scattered, erect black hair, sides of face and base of mandibles with pale pubescence; a slender silvery pubescent stripe on each side of thorax above, reaching from apex of metathorax nearly to anterior margin of prothorax; lower margin of flanks with a patch of dense silvery pubescence; legs black, coxæ and femora beneath and base of tarsi with pale hair, calcaria white; first abdominal segment with long pale hair; two small oblong spots at base of second segment and two rounded spots between middle and apex, smooth, shining and yellow; a spot on apical middle of segments 3-5, a spot on extreme apical sides of segments 2-4, extreme lateral margin of segment 2, and fringe on apical margin of ventral segments 2-4, all of silvery pubescence; apical segment entirely black.

Chapada. Easily separated from all the species having four smooth yellow or red spots on second abdominal segment, by the broad subquadrate head.

80. **M. graphica** Gerst. (Archiv. f. Naturg., xl, p. 74).—♀.—Length 15-23 mm.—Head transverse when viewed from above, slightly narrower than thorax; eyes round, convex, polished, removed from posterior margin of head by about half their diameter and nearly their diameter from base of mandibles; thorax elongate, gradually narrowed behind mesothorax; deeply notched on each side before base of metathorax, and slightly so on each side behind prothorax, the intervening space rounded and obtuse; metathoracic spiracles prominent, flanks deeply transversely grooved, smooth and polished before base of metathorax; legs slender; abdomen oblong-ovate, first segment subnodose, the apex depressed, band-like, and with a subapical row of small teeth; the four pale spots on second segment above smooth and polished, those at base narrow and longitudinal, those toward the apex transversely subquadrate or ovate, not large, but broader than those at base; second ventral segment deeply and coarsely punctured, shining.

Velvety black, with scattered suberect black hair; a tuft of whitish pubescence above base of mandibles, otherwise the head is black; two silvery pubescent stripes on meso- and metathorax, more or less interrupted at base of the latter

(leaving an elongate spot on each side of mesothorax), scarcely reaching posterior margin of prothorax; lower margin of flanks densely silvery pubescent; legs with black pubescence, the coxæ and femora with long pale hair, calcaria pale; sides of first abdominal segment, spot on apical middle of segments 2-6, lateral margin of the second, spot on sides at apex of segments 2-4, and apical margin of ventral segments 2 and 3, of silvery pubescence; sixth segment black, except the discal pale spot above; the four smooth, polished spots on upper surface of second segment yellow.

Chapada, Corumbá, Mararu, Paracary, Santarem. Common. Varies considerably in size.

Having sent, some years ago, a specimen of this species to Mr. Gerstaecker, he informed me that it was an unnamed species belonging to the group of *parallela* Klug, and I therefore named it *Gerstaeckeri*, and possibly the specimen, wherever it may be, is still so labelled. Subsequently Mr. Ernest André advised me that it does not differ from *graphica* Gerst.

81. **M. manca** ♀.—Length 10-15 mm.—Same form as *graphica*, but smaller, the pale stripes on the thorax are not interrupted, and extend almost to the anterior margin of the prothorax; the pubescence of the legs, except on coxæ and femora, is black, and the calcaria are black or fuscous; the two smooth yellow spots on posterior part of the second abdominal segment are acutely ovate and *oblique*, while segments 2 and 3 only have a white pubescent spot on extreme sides at apex.

Chapada. Varies much in size.

82. **M. sodalis** ♀.—Length 14-16 mm.—Very much like *graphica*; but the side of the thorax, between the two notches, is prominent and tuberculate, the pale stripes on the thorax extend only a short distance on mesothorax, where they are dilated but not interrupted; the tibiæ and tarsi have more pale pubescence; the calcaria are black or fuscous; the smooth yellow spots at base of second abdominal segment are shorter and broader, being almost short ovate, while the posterior two, although not larger than those at base, are scarcely transverse, but rounded or subquadrate; apical segment fuscous or black.

Chapada. Differs from *manca* by the sides of the thorax, between the two notches, being more prominent and tuberculate; by the shorter pale stripes on the thorax, and by the different shape of the smooth yellow spots on second segment of abdomen above, which are oblique in *manca*. This species, or *manca*, may prove to be *sancta* Gerst.

83. **M. optata** ♀.—Length 13-17 mm.—Shape and ornamentation of thorax much as in *sodalis*, except that the space between the two lateral notches is not so prominent; the thoracic stigmatic tubercles are very prominent; the tarsi are densely pale sericeous, the calcaria pale; the smooth yellow spots on second

abdominal segment above are shaped much as in *manca*, but larger and more deeply yellow, those at base shorter and not so linear; segments 2-4 have a pale pubescent spot on each extreme side at apex.

Chapada, Corumbá, Santarem. This species, or *manca*, or *sodalis*, or *borba*, or *auxiliaris*, may prove to be identical with *parallela* Klug; the description of that species is not sufficiently concise to determine with certainty.

84. **M. borba** ♀.—Length 12-16 mm.—This is also very much like *graphica*, being of same form; but the pale pubescent stripes on the thorax are not interrupted, and reach nearly to anterior margin of prothorax; the tibiæ and tarsi are densely pale pubescent; the smooth yellow spots on second abdominal segment above are shaped much as in *graphica*, although those on the posterior part of the segment are larger and broader.

Chapada. Common. The pale pubescent stripes on the thorax are much as in *manca*, from which this species differs by the pale calcaria, pale pubescence on the legs, and the transverse—not oblique—yellow spots on posterior part of second segment of the abdomen.

85. **M. juvenalis** Gerst. (Archiv. f. Naturg., xl, p. 75).—♀.—Length 12-15 mm.—Same form as *manca*, and very much like that species; but the thorax is not distinctly notched at sides; the two yellow spots on posterior part of second abdominal segment are transverse, not oblique; and the central silvery pubescent stripe on apex of abdomen is formed of spots on apical middle of segments 3-6, while in *manca* it is 2-6.

Chapada. Common.

86. **M. auxiliaris** ♀.—Length 11-14 mm.—Compared with *juvenalis* Gerst., this species has the pale pubescent stripes on thorax shorter, the legs have pale pubescence, the smooth yellow spots on base of second abdominal segment above are shorter ovate, and on this segment there is a small pale pubescent spot on apical middle, wanting in *juvenalis*; otherwise the two species are much alike.

Chapada.

This and the seven preceding species, having the head entirely black above, closely resemble each other in the ornamentation of the abdomen, and may be separated as follows:

Head large, broader than thorax; no pale pubescent spot on apical middle of second abdominal segment.....79. **vivata**.

Head of usual size, not broader than thorax; a small pale pubescent spot on apical middle of second segment, except in *juvenalis*.....2.

2. Pale pubescent stripes on thorax interrupted on mesothorax posteriorly.

80. **graphica**.

Pale pubescent stripes continuous, not interrupted.....3.

3. Calcaria black or fuscous.....4.
 Calcaria pale5.
4. Yellow spots on posterior part of second abdominal segment oblique, basal spots long, linear; sides of thorax rounded between the two notches; tibiæ and tarsi outwardly mostly black.....81. **manca**.
 Yellow spots slightly transverse, rounded or subquadrate, basal spots short, ovate; sides of thorax prominent and tuberculate between the two notches; legs with pale pubescence, calcaria black or fuscous.
 82. **sodalis**.
5. Yellow spots on posterior part of second abdominal segment oblique.
 83. **optata**.
 Yellow spots transverse.
 Sides of thorax deeply notched; legs with pale pubescence....84. **borba**.
 Sides of thorax not or scarcely notched.
 Tibiæ and tarsi outwardly mostly with black pubescence; no pale pubescent spot on apical middle of second abdominal segment.
 85. **juvenalis**.
 Legs with pale pubescence; a small pale pubescent spot on apical middle of second segment.....86. **auxiliaris**.

87. **M. unimarginata** ♀.—Length 14–15 mm.—Head transverse, as wide as thorax; eyes very convex, smooth, polished; thorax gradually narrowed posteriorly, lateral margin rather deeply constricted before metathoracic stigmatic tubercles, which are prominent; sides of metathorax coarsely rugose, the posterior face flat and rather abruptly declivous; abdomen ovate, first segment small, slightly widened to apex, which is somewhat constricted transversely, the base with the usual compressed tooth on each side, which appears acute when viewed from above; second segment rather closely and coarsely punctured.

Velvety black, with black pubescence; head entirely black above, cheeks with pale hair; scape of antennæ with golden pubescence; thorax above with two broad entire cupreous pubescent stripes, which are pale at apex of metathorax, flanks with patch of dense silvery pubescence on lower portion; legs with pale glittering hair, calcaria black or fuscous; sides of first segment pale golden; a narrow band, longitudinally grooved on disk, near apex of second segment, and two narrow elongate spots at base yellow, smooth and polished; a silvery stripe on middle of remaining segments beginning at apex of second, and a silvery spot on extreme sides of segments 2–4; venter with long pale hair, dense at apex of segments 2–4.

Chapada. A very distinct species, easily recognized by the narrow yellow band at apex of second segment of abdomen, and the two broad cupreous stripes on thorax.

88 **M. mundula** ♀.—Length 11 mm.—Closely resembles *unimarginata*, but differs by the smaller size, by the two stripes on thorax being narrow and silvery, and the pale calcaria; in two specimens there is a small silvery spot on vertex, and in the other the face is pale golden; the yellow spots at base of second segment are wanting, except in one specimen, where they are very small.

Chapada. Three specimens.

89. **M. Andrei** ♀.—Length 13 mm.—Long and narrow, rugosely sculptured, the head transverse, as broad as thorax, which is long and gradually narrowed behind, not constricted when viewed from above; the eyes very prominent, convex and polished; first segment of abdomen subnodose, only slightly narrowed posteriorly; second ventral segment strongly but not closely punctured.

Velvety black; head entirely black, except some silvery hair on cheeks; two narrow silvery pubescent stripes on thorax above, extending from apex of metathorax to prothorax; lower margin of flanks of thorax broadly silvery; lateral margin of first segment of abdomen, a narrow stripe on middle of the segments beyond the second, extreme sides of segments 2-4, and apical margin of ventral segments 2-4, silvery pubescent; two narrow, strongly arcuated, widely divergent posteriorly, smooth, shining, pale yellow stripes on second segment above; legs with pale glittering pubescence, calcaria white.

Chapada (October). One specimen. Easily recognized by the two arcuated yellow stripes on second segment of abdomen.

It give me much pleasure to dedicate this fine species to Mr. Ernest André, of Gray, France, who has very kindly aided me in the preparation of this paper.

90. **M. rectilineata** André (Ann. Soc. Ent. Fr., lxvii, 1898, p. 48).—♀.—Length 8.5-11.5 mm.—Head and thorax coarsely rugose, the metathorax coarsely reticulated, except apex and flanks which are shining and almost smooth; thorax broad anteriorly and narrowed behind mesothorax; metathorax abruptly declivous posteriorly; abdomen longitudinally rugose, but less coarsely than thorax; pygidium finely longitudinally aciculate; the second ventral segment strongly punctured.

Black, with coarse black pubescence; head and thorax entirely black; mandibles sometimes red medially; two narrow, slightly bent and divergent, smooth, polished, yellow stripes on second segment of abdomen, nearly reaching apical margin; apical margin of first segment more or less silvery; a silvery stripe on disk of segments 3-5; the extreme sides of these segments also silvery; venter with pale hair; legs entirely black; calcaria black or fuscous.

Chapada. Easily recognized by the two smooth yellow stripes on second segment of abdomen.

91. **M. ipanema** ♀.—Length 9-10 mm.—Closely resembles *rectilineata*, but differs by the narrower and not coarsely sculptured metathorax, which has two narrow silvery pubescent stripes above, and a broad silvery stripe on lower margin of flanks; the first segment of abdomen is silvery at sides above, and the calcaria are white.

Chapada.

MALES.

- Eyes ovate, emarginate, subopaque; tegulæ large, elongate oval2.
 Eyes round or oval, smooth, polished, not emarginate; tegulæ rounded, not elongate.....15.
2. First segment of abdomen broad, scarcely constricted at apex, gradually dilated posteriorly and sessile with base of second segment; prothorax rounded anteriorly; abdomen more or less red.....3.
 First segment narrower, depressed, and of uniform width, being quadrate or elongate, with parallel sides; prothorax rectangular in front6.
3. Pubescence of second and following segments of abdomen at apex black, more conspicuous from a lateral view; base of clypeus with a more or less prominent nasutiform projection, seen more distinctly from beneath.
 1. **macapa** Cress
 Pubescence of segments 1-5 or 6 at apex golden or fulvous4.
4. Pubescence on tegulæ black; first segment of abdomen except tip, and apical segment, black; clypeus with obtuse nasutiform projection at base; form robust.....2. **escada** Cress.
 Pubescence of tegulæ pale.....5.
5. Base of clypeus with a semicircular roof-like projection; apical segment of abdomen sometimes black or fuscous.....4. **rufiventris** Klug.
 Base of clypeus with a spiniform projection at base; two apical segments of abdomen black; form slender.....3. **manga** Cress.
6. Tegulæ with a central longitudinal carina7.
 Tegulæ without a longitudinal carina8.
7. Abdomen black, second segment above silvery at apex.....5. **gracilis** Sm.
 Abdomen with segments 2 and 3 red6. **laguna** Cress.
8. Abdomen black or purple, marked with silvery pubescence9.
 Abdomen black, apical half of second, and the following segments with dense golden pubescence; metathorax and first segment of abdomen silvery.
 13. **onca** Cress.
 Abdomen ferruginous, segments 4-7 black; apex of segments 2 and 3 yellowish; head, prothorax, pleura and metathorax densely silvery-ochraceous14. **vicosa** Cress.
- Abdomen entirely fulvous, clothed with golden pubescence.....14.
9. First segment of abdomen short, scarcely longer than broad.....10.
 First segment elongate, twice longer than broad13.
10. Last ventral segment more or less pale testaceous11.
 Last ventral segment entirely black.....10. **jatoba** Cress.
11. Base of second segment of abdomen much flattened, and covered like first segment with short silvery white pubescence; the metathorax with a prominent obtuse tooth on each side....7. **argentula** Dalla Torra.
 Base of second segment more or less depressed, but not covered with pale pubescence12.
12. Scutellum produced at apex and bilobed; metathorax with a prominent obtuse tooth on each side, and without a subapical discal tooth.
 8. **morada** Cress.
 Scutellum not produced at apex, simply convex; metathorax with lateral margin serrate and a more or less distinct subapical discal tooth.
 9. **croata** Cress.

13. Scutellum flattened, strongly produced and deeply emarginate at tip, the lateral angles prolonged, incurved and subacute; metathorax with a rather long, obtuse, discal spine; pleura, beneath tegulae, armed on each side with a prominent obtuse tooth; abdomen beyond first segment dark blue and purple; last ventral segment pale testaceous; wings with a beautiful violaceous reflection.....11. **catinga** Cress.
Scutellum elevated, subpyramidal; last ventral segment black.
12. **abadia** Cress.
14. Tegulae scabrous; metathorax angular laterally but not spinose, and with a small subapical discal tooth15. **sincora** Cress.
Tegulae smooth and shining; metathorax with a prominent lateral tooth; no discal tooth.....16. **pinha** Cress.
15. First segment of abdomen not constricted at apex, gradually dilated posteriorly and conforming in outline with base of second segment...16.
First segment short and very broad, anterior face abruptly declivous, the narrow upper surface transversely depressed, band-like; head large, subquadrate, rather broader than thorax; metathorax and first segment of abdomen above densely silvery; the second segment smooth and polished.....24. **carmo** Cress.
First segment small, narrow, nodiform, more or less constricted at apex...22.
16. Scutellum fulvous.....17. **mystica** Gerst.
Scutellum black.....17.
17. Head very broad and enormously developed, the occiput broadly and deeply emarginate posteriorly, upper angles rounded, lower angles produced into a long obtuse tooth; clypeus deeply transversely excavated.
18. **barboza** Cress.
Head not broader than thorax.....18.
18. Head and prothorax above with black pubescence.....19.
Head and prothorax above with pale pubescence; apex of abdominal segments 1-4 above fimbriate with pale pubescence; small species21.
19. Abdomen above, behind second segment, not fasciate with pale pubescence..20.
Abdomen above with a band of silvery-ochraceous pubescence, interrupted on middle, on segments 1, 3 and 4.....19. **alagoa** Cress.
20. Metathorax, pleura, first segment of abdomen and basal margin of second, most of venter and legs, rather thickly clothed with white pubescence.
21. **molaca** Cress.
Metathorax with some scattered, long, pale hairs; pleura entirely black; apical margin of first segment of abdomen, broadly interrupted medially, and a spot on each basal corner of second segment, clothed with white pubescence.....20. **anthracina** Gerst.
21. Metathorax above densely covered with a short appressed silvery-white pubescence22. **coimbra** Cress.
Metathorax almost nude, reticulated23. **inga** Cress.
22. Second segment of abdomen beneath with a pubescent fovea.....23.
Second segment beneath without a fovea31.
23. Second segment of abdomen black, more or less ornamented with pale pubescence24.
Second segment more or less red.....34. **zapara** Cress.

24. Calcaria black; body above black pubescent; apex of first segment of abdomen and band behind second segment pale ochraceous pubescent.
25. **cuiba** Cress.
- Calcaria pale25.
25. Head and prothorax black pubescent26.
- Head and prothorax pale pubescent.....29.
26. Tibiæ with black pubescence on outer side, pale on inner27.
- Tibiæ with the pubescence entirely griseous or white.....28.
- Tibiæ with the pubescence fulvo-fuscous; abdomen with apex of first segment and narrow band behind second, silvery or white.
26. **orbana** Cress.
27. First segment of abdomen at apex with a broad band of silvery-white appressed pubescence; a patch of whitish pubescence on each side of metathorax at base above; tubercle beneath tegulæ large, prominent, obtuse; posterior tibiæ with the pale pubescence on inner side dense and long.....27. **vidua** Klug.
- First segment with long pale hair, and fringed at apex with rather short pale pubescence, but not forming a broad band; metathorax with scattered long pale hair; tubercle beneath tegulæ acute; posterior tibiæ with the pale pubescence on inner side short and sericeous.
28. **lorena** Cress.
28. Pubescence of head entirely black; ventral segments 2 and 3 fimbriate at apex with white pubescence; wings fuscous, hyaline at base; sides of abdominal segments 1 and 2 at base, and spot at sides of 3, densely white pubescent.....30. **caneta** Cress.
- Pubescence of head in front and on clypeus pale; ventral segments 2-4 fimbriate at apex with white pubescence; wings uniformly fuscous; first abdominal segment with long, loose, pale hair; sides of second segment at base, and spot at extreme sides of 3 and 4 pale pubescent.
29. **caxara** Cress.
29. Anterior wing with marginal cell smaller and not longer than second submarginal; tubercle beneath tegulæ large, prominent and subacute.
31. **almada** Cress.
- Anterior wing with marginal cell about as long as the first and second submarginals combined.....30.
30. Second submarginal cell twice longer than high, pointed at base; pleura obtusely protuberant beneath tegulæ.....32. **picada** Cress.
- Second submarginal cell scarcely longer than high, subquadrate, not pointed at base; pleura not protuberant beneath tegulæ....33. **barra** Cress.
31. Second segment of abdomen above black, with two large smooth pale yellow spots; calcaria black.....35. **colorata** Gerst.
- Second segment above black, more or less ornamented with white pubescence.....32.
32. Pleura with a more or less developed tubercle or spine beneath tegulæ....33.
- Pleura without tubercle or spine beneath tegulæ.....36.
33. Abdomen when viewed from above entirely black behind base of second segment.....34.
- Abdomen more or less banded with pale pubescence behind second segment.....35.

34. Tubercle beneath tegulae obtuse; ventral segments 2 and 3 fringed at apex with pale pubescence36. **tapera** Cress.
 Tubercle acute; venter black pubescent.....37. **serra** Cress.
35. Tubercle beneath tegulae short, obtuse; pro- and mesothorax entirely black pubescent38 **viana** Cress.
 Tubercle long, acute; metathorax silvery tomentose....41. **maraca** Cress.
36. Head protuberant behind ocelli; abdomen polished, first segment long, petiolate43. **pomba** Cress.
 Head not protuberant behind ocelli.....37.
37. Four posterior legs with black pubescence.....40. **taboca** Cress.
 Legs with griseous pubescence.....38.
38. Abdomen, when viewed from above, entirely black behind base of second segment39. **sabara** Cress.
 Abdomen with a broad silvery pubescent band behind second segment.
 42. **acara** Cress.

The following four species have the abdomen smooth, shining, feebly punctured and ferruginous, the first segment broad and dilated at apex and sessile with the base of second segment; eyes ovate, emarginate, faceted; clypeus with a more or less well defined nasutiform or roof-like process at base; prothorax rounded in front, anterior angles not prominent; mesothorax deeply punctured and longitudinally grooved; scutellum convex, with a more or less distinct shining tubercle or ridge on disk; metathorax rounded above and at sides, reticulated, the basal middle with a more or less well defined longitudinal area; tegulae ovate, not unusually large and elongate, as in the next group; anterior wings with a large marginal cell, broadly truncate at apex, and not extending beyond tip of third submarginal, which is complete and distinct.

Pubescence of abdomen above black, mixed with pale.....Species 1.
 Pubescence of abdomen above mostly goldenSpecies 2-4.

1. **M. macapa** ♂.—Length 10-11 mm.—Black, shining, abdomen ferruginous, apex of segment 5, and 6 and 7 entirely black, the first segment rarely black; the pubescence pale, more dense and pale ochraceous on face, cheeks, prothorax above, pleura, and base of metathorax. Head finely punctured, vertex with some black hair; eyes ovate, emarginate; tip of flagellum red; clypeus transversely excavated, with a subtriangular nasutiform process at base, concave and polished beneath. Prothorax rounded on sides anteriorly, with upper margin pale ochraceous tomentose; mesothorax with short black pubescence and distinct close punctures, a longitudinal groove on each side of disk and a smooth longitudinal subcarinate line on each side over tegulae, these last ending posteriorly in a transverse carinated tubercle; scutellum black pubescent at base, and at apex with long pale hair, convex, punctured, with a small smooth line or

tubercle on disk, and a deep transverse fovea at base; metathorax with pale silky hair, rounded above and at sides, reticulated, with two long longitudinal carinae from base nearly to middle, forming an elongate narrow area, from which diverge on each side an oblique carina to apex, on each side of this area at extreme base a transverse patch of pale ochraceous pubescence; tegulae smooth, polished, piceous, paler on depressed outer margin, sometimes fusco-testaceous, with margin pale testaceous. Wings subhyaline, pale fuscous on apical half and hyaline at base; marginal cell large, broad, sub lanceolate, truncate at tip; first and second submarginal cells elongate and about equal in length and size; second submarginal pointed at base, receiving the recurrent nervure at about the middle, the first and second transverso-cubital nervures widely separated on marginal; third submarginal complete, irregularly subquadrate, slightly narrowed above. Legs with pale glittering pubescence, sparse on femora; tarsi pale golden pubescent; calcaria white. Abdomen ferruginous, shining, irregularly punctured, with pale scattered pubescence at base and sides, and over second segment; the three or four apical segments more or less black; first segment rarely black, depressed, dilated at apex which is feebly constricted, and conforming in outline with base of second segment, the latter smooth, polished and impunctured on disk; apical middle of second and remaining segments clothed with black pubescence, more obvious when viewed laterally.

Chapada. This may be *lucidiventris* Gerst., which is said to be the ♂ of *phalerata* Klug.

2. **M. escada** ♂.—Length 14 mm.—Form robust, black, with segments 2-6 of abdomen ferruginous, the pubescence pale, and dense yellowish on head, prothorax, pleura and base of metathorax, some black hairs on vertex. Eyes emarginate; clypeus with an obtuse nasutiform process at base. Prothorax rounded anteriorly; mesothorax confluent punctured, sculptured much as in *macapa*, the pubescence black; scutellum convex, a smooth polished tubercle on disk and a deep fovea at base, the pubescence black at base, long and white at apex; metathorax rounded above, reticulated, sparsely clothed with long pale silky hair, more dense laterally, above pale tomentose, a dense transverse patch of pale ochraceous pubescence at extreme base, the long narrow area at base as in *macapa*; tegulae black, with black pubescence. Wings fusco-hyaline, darker at apex, pale at base; venation as in *macapa*. Legs with pale glittering pubescence; calcaria pale. Abdomen ferruginous, shining, feebly punctured; first segment shaped as in *macapa*, and, except apical margin, black with scattered pale hair; terminal segment black, with black pubescence; apical margin of segments 2-6 with golden-fulvous pubescence, more distinct when viewed laterally; venter with pale pubescence, the second segment deeply and sparsely punctured.

Rio de Janeiro (November). One specimen. A very robust form, and may be identical with *terminalis* Gerst.

3. **M. manga** ♂.—Length 8.5 mm.—Slender, black, the abdomen except two apical segments ferruginous; head prothorax and pleura thickly clothed with pale ochraceous pubescence. Clypeus with a small acute nasutiform tooth at base; eyes emarginate. Prothorax round anteriorly; mesothorax distinctly punctured, sculptured much as in *macapa*, the pubescence black; scutellum and

metathorax as in *escada*; tegulæ fuscous, the pubescence pale. Wings subhaline, darker at apex, neuration as in *macapa*. Legs with the pubescence and calcaria pale. Abdomen formed much as in *macapa*, the punctures scattered and especially sparse on second segment which is polished; the pubescence on segments 1 and 2 scattered and white, that on apex of second and the three following segments golden, more obvious when viewed laterally; the two apical segments black, with black pubescence; venter with sparse pale pubescence.

Chapada (April). Two specimens. This is smaller and more slender than the other species of this group, and with the clypeal tooth narrower and more acute.

4. **M. rufiventris** Klug (Nova Acta. Cæs. Nat. Cur., x, p. 306, pl. xxi, fig. 12). ♂.—Length 11–12 mm.—Very much like *macapa*, but easily distinguished by the basal process of the clypeus being transverse, broadly rounded and roof-like, and by the pubescence on apical margin of the second and following segments of abdomen being golden; the reticulations of metathorax are larger and the basal area more or less irregularly shaped, and the tegulæ have pale pubescence; the terminal segment of the abdomen is sometimes more or less black or fuscous.

Corumbá, Santarem; lowlands (March).

The following twelve species have the abdomen subpetiolate, the first segment narrow, depressed, usually quadrate, or elongate (*catinga*, *abadia*), sides generally parallel, occasionally subnodose (*sin-cora*, *pinha*), rarely transverse at apex (*vicosa*); second segment sometimes much flattened above at base (*argentula*); segments 4–7 with a central longitudinal carina in all the species; clypeus longitudinally carinated at base, the carinæ sometimes ending in two teeth towards apex; eyes ovate, deeply emarginate, faceted; prothorax rectangular in front, anterior angles more or less prominent and acute; mesothorax generally roughly sculptured and longitudinally costate; scutellum generally convex, sometimes flattened, shield-like and toothed at apex (*catinga*); the metathorax always densely pubescent, depressed, with more or less angulate or toothed sides and often with a distinct subapical discal tooth; tegulæ unusually large and elongate-ovate, rarely with a longitudinal carina (*gracilis*, *laguna*), or tuberculate at base (*catinga*); wings with large, lanceolate or sublanceolate marginal cell; generally small, narrow, oblique first marginal cell; large, elongate second submarginal cell, and very large, irregularly shaped third submarginal, the outer nervure of which is generally more or less indistinct, and extending far beyond the apex of marginal cell.

Tegulæ with a median longitudinal carina.

Second abdominal segment black.....Species 5.

Second abdominal segment ferruginous.....Species 6.

Tegulæ without longitudinal carina.

Second abdominal segment black.

Abdomen with the pale pubescence silvery white.

First segment quadrate, or only slightly longer than wide...Species 7-10.

First segment elongate, much longer than wide.....Species 11-12.

Abdomen with the pale pubescence mostly fulvous.....Species 13.

Second abdominal segment fulvous or ferruginous.....Species 14-16.

5. **M. gracilis** Smith (Brit. Mus. Catal. Hym., iii, p. 42).—♂.—Length 8-10 mm.—Black, opaque; head, prothorax, pleura beneath wings, metathorax and apical margin of segments 1 and 2 of abdomen, densely silvery-white pubescent. Eyes emarginate. Anterior margin of prothorax straight, transverse, with acute lateral angles; mesothorax coarsely, confluent sculptured, with several smooth longitudinal carinæ, the pubescence short and black; scutellum convex, with erect black pubescence, becoming longer and pale at apex; metathorax flattened, the lateral angles obtuse, and when viewed from beneath carinate; tegulæ large, elongate ovate, opaque fuscous, the pubescence black, a well-defined longitudinal carina on middle the entire length. Wings subhyaline, darker at apex; marginal cell lanceolate, the apex subtruncate; first submarginal cell small as compared with the other cells, oblique; second submarginal large, as long as marginal, receiving the recurrent nervure beyond the middle, the first and second transverso-cubital nervures widely separated on marginal; third submarginal complete, irregularly subquadrate, narrowed beneath and extending far beyond apex of marginal cell, with the outer nervure somewhat indistinct. Legs robust, the pubescence and calcaria white. Abdomen incurved at apex, densely, strongly and distinctly punctured, clothed with a scattered long white pubescence, more dense at sides and on apical margin of the segments; first segment short, quadrate, depressed; second segment flattened on basal middle, the pubescence above short and black, the white pubescent band at apex more or less indented on anterior margin; third and following segments with median longitudinal carina; venter with pale glittering pubescence.

Chapada; Santarem; Pedra Branca.

6. **M. laguna** ♂.—Length 9 mm.—Form much as in *gracilis*, but more robust; black, the second and third segments of abdomen orange-ferruginous or ferruginous. Head with pale pubescence, golden on front and mixed with black on vertex; eyes emarginate; tips of mandibles ferruginous. Prothorax, mesothorax, pleura and metathorax much as in *gracilis*; scutellum coarsely reticulate, flat above, quadrate, slightly narrowed behind, sides and apex margined, the latter broadly subemarginate, with acute lateral angles; tegulæ, wings and legs as in *gracilis*, except that the former is shining and testaceous at apex. First abdominal segment transverse, shorter and broader than in *gracilis*, black, with the apical margin narrowly white pubescent; second segment punctured as in *gracilis*, shining, with pale pubescence, more dense at sides and narrowly white pubescent at apex; disk of segment 3-7 longitudinally carinate, the pubescence pale.

Chapada (April). Two specimens. This species and *gracilis* are easily separated, from the following species of this group, by the carinate tegulæ.

7. **M. argentula** Dalla Torra (Catal. Hym., viii, p. 11; *argentata* || Klug, Nova Acta Cæs. Nat. Cur., x, p. 305, pl. xxi, fig. 11).—♂.—Length 10.5 mm.—Black, opaque. Head silvery tomentose, vertex black, with black pubescence; clypeus with two minute teeth toward base; eyes emarginate. Pro- and mesothorax as in *gracilis*, the former silvery tomentose; scutellum coarsely punctured, convex, protuberant, the pubescence black, pale at apex; metathorax and pleura densely silvery-white tomentose, the former flattened, depressed on each side of the subcarinate disk, lateral margin straight, subcarinate and terminating posteriorly in a prominent subacute tooth pointed backward, the punctuation fine, as seen through the silvery tomentose; tegulæ shining fuscous, not carinate, the pubescence black. Wings much as in *gracilis*. Legs slender, with pale glittering pubescence; calcaria white. First abdominal segment narrow, depressed, quadrate, densely silvery tomentose; second segment broadly flattened at base above, densely, distinctly punctured, the pubescence short and black, a broad band at base and a narrow one at apex, attenuated on disk, silvery tomentose, apex of the segment smooth and shining; remaining segments longitudinally carinate on middle and sparsely clothed with pale glittering pubescence; beneath, the second segment is more or less silvery tomentose, the apical segment with a large quadrate testaceous spot.

Santarem. The second segment of the abdomen is more flattened above at base than in *gracilis*, and has a broad white tomentose band, wanting in that species.

8. **M. morada** ♂.—Length 9 mm.—Very much like *argentula*, and differs mostly as follows:—the scutellum is produced and bilobed at apex; the metathorax less flattened, and roughly sculptured as seen through the silvery tomentose, the disk not carinate or toothed at apex, the lateral posterior angles have a short subacute tooth directed outwardly; the second abdominal segment is only slightly depressed at base and without the broad silvery tomentose band.

Santarem. One specimen.

9. **M. croata** ♂.—Length 6-8 mm.—Differs from *morada* only as follows: scutellum convex, not bilobed at apex; metathorax with the lateral margin serrate and an apical porrect discal tooth; base of second abdominal segment subconvex, or very feebly depressed.

Chapada; Corumbá; Santarem.

10. **M. jatoba** ♂.—Length 11 mm.—Very much like *morada*, and differs by the scutellum being prominent and convex, not bilobed at apex; the lateral posterior angles of metathorax more obtuse; the second abdominal segment less deeply punctured, and the last ventral segment entirely black.

Santarem. One specimen. Larger than *croata*, with more convex scutellum, and more angulate sides of metathorax.

11. **M. catinga** ♂.—Length 12 mm.—Black, sparsely pubescent. Head and thorax roughly sculptured with large discoidal punctures; clypeus smooth and flat on apical middle, with two longitudinal carinæ arising close together at extreme base, slightly diverging to about the middle, and then obliquely directed towards base of mandibles, and when viewed from beneath the clypeus appears rather deeply emarginate and with two small teeth at the point of discal divergence; eyes emarginate; front between antennæ and clypeus thickly clothed with silvery-white pubescence. Lateral anterior angles of prothorax acutely carinate, the posterior margin prominent; mesothorax longitudinally carinate; scutellum flattened, strongly produced, shield-shaped, with carinate sides, the apex deeply emarginate, the lateral angles being prolonged, incurved and subacute, the disk carinate on apical middle; metathorax densely silvery tomentose, the lateral margin serrate, the apical middle with a prominent, rather long, subporrect, obtuse tooth or spine; a strong, subcompressed, obtuse tooth on pleura beneath tegulæ, the latter minutely alutaceous, with a shining subcarinate tubercle at base. Wings subhyaline, with a strong violaceous reflection, fuscous on apical and costal margins, nearly clear at base and in the third submarginal and second discoidal cells; neuration much as in the preceding species. Legs slender, the pubescence sparse and pale; calcaria white. Abdomen slender, subpetiolate; first segment twice longer than wide, of equal width, blue at base and densely silvery-white tomentose, with long, sparse white hair; second and following segments purple, polished, with scattered pale hair laterally, sparsely punctured, the punctures few and scattered on basal middle of second segment; segments 3-7 with a longitudinal central carina; venter black with scattered pale pubescence, second segment blue, deeply, sparsely punctured, the apical segment pale testaceous.

Santarem. Two specimens. A very distinct species, easily recognized by the shield shaped scutellum, strongly toothed at apex, and by the purple abdomen.

12. **M. abadia** ♂.—Length 9-12 mm.—Form much as in *catinga*, but more thickly pubescent; the head, prothorax and pleura much less coarsely punctured; clypeus without the triangular open space at apex, the two longitudinal carinæ on basal middle longer and ending in two acute teeth near anterior margin; mesothorax irregularly costate; scutellum conical, prominent; the central apical tooth on metathorax more obtuse and compressed; pleura protuberant, with a median obtuse tubercle; tegulæ more or less pinched at base; wings paler, the third submarginal cell larger and broader beneath, receiving the recurrent nervure at about the middle, while in *catinga* it is received between the middle and tip; legs more thickly pubescent; abdomen black, the first segment slightly wider at apex, the second segment shining, strongly punctured, flattened and almost smooth on basal half above, the apical margin fimbriate with white pubescence, and the sides of remaining segments more thickly pubescent; beneath entirely black with pale pubescence; no testaceous spot on apical segment; otherwise as in *catinga*.

Santarem.

13. **M. onca** ♂.—Length 8 mm.—Black; head and thorax deeply punctured. Head with pale golden pubescence, whitish on clypeus, eyes emarginate.

Mesothorax and scutellum at base with black pubescence, that on prothorax and pleura pale sericeous; anterior angles of prothorax acute; mesothorax longitudinally costate, the scutellum convex, with long pale hair at tip; metathorax unarmed, depressed, with dense appressed silvery-white pubescence, the sides angulate; tegulae large, elongate. Wings pale fuscous, subhyaline at base; marginal cell long, narrow, lanceolate, broadly rounded or subtruncate at apex; first submarginal cell small, narrow, oblique, the second submarginal large, broad, longer and larger than marginal, extending as far out as to apex of the latter, and receiving the recurrent nervure beyond the middle; first and second transverso-cubital nervures widely separated on marginal; third submarginal large, complete, but indistinctly defined, receiving the recurrent nervure slightly beyond the middle. Legs with pale pubescence, sparse on femora; calcaria white. Abdomen narrow, incurved at apex; first segment narrow, subquadrate, depressed, clothed, like the metathorax, with dense silvery-white pubescence; second segment strongly and rather closely punctured, the pubescence on base and sides sparse and white, that on apical half indented anteriorly, and on remaining segments dense golden-fulvous; venter with pale pubescence, the second segment strongly punctured, the apical segment more or less pale testaceous.

Chapada. One specimen. Resembles somewhat the description given of *inaurata* Smith, but in that species the metathorax is said to have a prominent discal tubercle.

14. **M. viciosa** ♂.—Length 8 mm.—Black; head, prothorax, pleura and metathorax clothed with a more or less dense pale ochraceous pubescence, paler and silvery on metathorax and pleura; eyes emarginate. Anterior angles of prothorax prominent, acute; mesothorax and scutellum coarsely sculptured, the pubescence black, long and mixed with pale on scutellum, which is convex; tegulae large, elongate, dark fuscous, broadly margined outwardly with pale testaceous. Wings yellowish subhyaline, darker on apical margin; marginal cell large, broad, sub lanceolate, broadly truncate at apex; second submarginal nearly as large as the marginal, the apex extending nearly as far as to apex of marginal, receiving the recurrent nervure beyond the middle, the first and second transverso-cubital nervures widely separated on marginal; third submarginal cell large, complete, with the outer nervure very faint, broader below than above, receiving the recurrent nervure between middle and tip. Legs slender, the pubescence and calcaria pale. Abdomen deeply and evenly punctured, especially on second segment, the pubescence pale, dense and silvery on apical margin of basal segment, which is broad, transversely subquadrate, depressed; segments 1-3 fulvo-ferruginous, the pubescence on apex of second segment golden, white on lateral apical margin, the fourth and following segments black, with pale pubescence and together with the third having a longitudinal central carina.

Chapada (April). One specimen. This species appears to resemble both *simplex* Smith and *squamata* Smith, but the descriptions given are not sufficiently full to determine in either case.

15. **M. sincora** ♂.—Length 11.5 mm.—Head and thorax black, abdomen and legs fulvo-ferruginous; head, pleura and metathorax above densely golden-

fulvous tomentose; eyes emarginate; palpi, mandibles, and three basal joints of antennæ pale ferruginous. Prothorax with dark golden pubescence, the anterior angles acute; mesothorax coarsely reticulated, longitudinally costate and clothed, as well as scutellum and tegulæ, with black pubescence; scutellum convex, with erect fuscous pubescence; metathorax with angulate sides and a small subapical discal tooth; tegulæ large, elongate, finely scabrous, black, with very short black pubescence. Wings fusco-hyaline, paler at base, then euration much as in *onca* except that the marginal cell is longer and narrower, and the second submarginal larger and not extending as far out as tip of marginal. Legs, including coxæ, pale ferruginous, the pubescence pale golden; calcaria short, pale, tipped with black. Abdomen strongly punctured, incurved at apex; first segment except base, broad band at apex of second and remaining segments golden tomentose; first segment short, narrow, subnodose at apex, the second flattened above except apex; segments 4-6 with a central longitudinal carina; venter deeply, strongly punctured, first segment obtusely toothed beneath.

Rio de Janeiro (November). One specimen.

16. **M. pinha** ♂.—Length 8 mm.—Very much like *sincora*, but smaller, with the golden pubescence less dense and conspicuous; tegulæ smooth, shining, nigro-fuscous, paler at apex; sides of metathorax above more strongly angulate and produced into an obtuse tooth; calcaria very long, slender, not tipped with black; the golden pubescent bands on abdomen less distinctly defined.

Rio de Janeiro (November). One specimen.

The following eight species have the first segment of the abdomen broad and dilated at the apex, depressed, and not at all nodose, but sessile with base of second segment, and conforming in outline therewith, except in *carmo* where the upper surface is very short, band-like, the anterior face being abruptly declivous to base of the segment; head sometimes enormously developed, as in *barboza*; eyes generally round or subovate, and more or less convex, not emarginate; anterior angles of prothorax more or less rounded and obtuse; metathorax rounded laterally and above, unarmed; tegulæ rounded, not elongate, much smaller than in the preceding group:

Scutellum fulvo-ferruginous.....Species 17.
Scutellum black.

First segment of abdomen depressed, gradually dilated to apex.

Head enormously developed, cheeks spined.....Species 18.

Head not or very slightly broader than thorax, cheeks not spined.

Large species.....Species 19-21.

Small species.....Species 22-23.

First segment of abdomen very short and transverse at apex, like a band or collar.....Species 24.

17. **M. mystica** Gerst. (Archiv. f. Naturg., xl, p. 48).—♂.—Length 15 mm.—Velvety black. Head large, broader than thorax, transversely quadrate, densely and finely punctured, the pubescence black and erect, except on clypeus where it is pale; a large, strong, subacute tooth on cheeks beneath posteriorly; clypeus with two long teeth on apical middle; eyes small, ovate, depressed, minutely faceted; scape of antennæ fringed with long pale pubescence. Pro- and mesothorax closely punctured, clothed with black pubescence; tegulæ piceous, shining; scutellum convex, deeply punctured, orange-ferruginous; pleura and metathorax densely pale silvery ochraceous tomentose, with longer whitish hair. Wings fuscous, the base and a large spot beneath stigma, hyaline; marginal cell short, broadly rounded at tip, not extending beyond the very short, subquadrate second submarginal, which is often more or less incomplete; third submarginal cell not enclosed. Legs thickly fringed with long pale hair; calcaria black. Abdomen short ovate; first segment depressed, not nodose or constricted at apex, gradually dilated posteriorly and sessile with base of second segment, the pubescence pale-ochraceous, more dense and appressed on apical margin; second segment densely and finely punctured, the pubescence black, except on sides at base where it is pale silvery-ochraceous and appressed; remaining segments with black pubescence, longer, sparse and whitish on extreme sides; venter polished, the pubescence sparse and pale except at apex; second segment sparsely punctured.

Rio de Janeiro (November). Easily recognised by the orange-ferruginous scutellum, and silvery tomentose metathorax and base of abdomen.

18. **M. barboza** ♂.—Length 15 mm.—Black, opaque. Head larger than the entire thorax, very broad (6 mm.), transversely subquadrate, finely punctured, with sparse pale pubescence, more dense on the front and on anterior margin of clypeus; occiput deeply broadly emarginate posteriorly, the lateral angles produced, broadly rounded, compressed and carinate, the cheeks beneath with a long stout tooth directed backward; clypeus very transverse, narrow, and deeply depressed; mandibles long, narrow, bidentrate at tip; eyes small, ovate, flattened; ocelli minute. Thorax much narrower than the head, deeply punctured, the pubescence short and pale, that on pleura and metathorax dense and ochraceous, brown at base of the latter, and at sides and apex long and pale; metathorax closely punctured and rounded behind; the tegulæ castaneous, rounded, polished; scutellum convex. Wings fuscous, with a pale spot at tip of second submarginal cell, neuration much as in *alagoa*, except that the marginal cell is longer, narrower and gradually rounded to apex. Legs slender, clothed with pale pubescence; calcaria white. Abdomen short, ovate, very finely and closely punctured, shining, clothed with pale sericeous appressed pubescence, except on apical middle of second segment where it is black and very short; first segment depressed, broad and subconstricted at apex, sessile with base of second segment and conforming in outline therewith; venter polished, with sparse, appressed, pale pubescence, more dense on apical margin of the segments; second segment sparsely punctured, the basal segment with a short prominent carina on disk.

Chapada (February). One specimen. Easily recognized by the

enormously developed head. The pubescence on the abdomen is pale sericeous and more dense on apex of first, basal sides of second and on third and following segments.

19. **M. alagoa** ♂.—Length 15 mm.—Large, velvety-black, clothed with black pubescence; head and thorax densely, confluent punctured. Head transverse, not wider than thorax; eyes round, very convex, polished; clypeus and mandibles fringed with white pubescence, the former with three minute teeth on apical middle. Anterior angles of prothorax rounded; scutellum convex, with a prominent, shining tubercle on disk; pleura with an obtuse tubercle beneath tegulæ; metathorax coarsely reticulated, abruptly declivous behind, clothed with long pale hair; tegulæ rounded, smooth and polished. Wings violaceous fuscous, the extreme base, a line across first submarginal cell, a furcate streak through second and third submarginals and a spot beneath tip of second submarginal, hyaline; marginal cell long, broad, and broadly truncate at apex; second submarginal almost as long the marginal, narrowed and pointed at base, receiving the recurrent nervure in the middle; third submarginal sometimes indistinctly defined, narrowed beneath, also receiving the recurrent nervure in the middle. Legs fringed with long pale pubescence, that on outer side of tibiæ short and black; calcaria white. Abdomen clothed with short black pubescence, very sparse on second segment above, which is finely punctured and shining; first segment very broad at apex, obliquely declivous at base, the upper surface very short and transverse, sessile with base of second segment, and clothed with dense appressed white pubescence, broadly interrupted on disk; base of second segment on each side with white pubescence, also a white pubescent line at extreme side; a band of dense appressed white pubescence on segments 3 and 4 above, interrupted medially; the venter polished, with sparse white pubescence on apical margin of segments 2 and 3; second segment sparsely punctured, gibbous towards base.

Chapada (January, October). One specimen. A large, black species, with a white pubescent band, interrupted medially, on third and fourth segments of abdomen above.

20. **M. anthracina** Gerst. (Archiv. f. Naturg., x1, p. 311).—♂.—Length 14 mm.—Velvety black, the pubescence black. Head narrower than thorax; clypeus and cheeks with pale pubescence, the former with three small teeth on apical middle; eyes round, convex, polished. Prothorax rounded anteriorly; mesothorax densely and coarsely punctured; scutellum convex, with a polished tubercle on disk, the apex with long, pale, silky hair; a blunt tubercle on pleura beneath tegulæ; metathorax reticulated, sloping above and abruptly declivous and flat posteriorly, clothed with long pale silky hair, and two silvery-white tomentose spots above near base; tegulæ round, smooth, polished, with black pubescence. Wings and legs as in *alagoa*. Abdomen shaped and ornamented as in *alagoa*, except that the pubescence above beyond base of second segment is entirely black, except a few white hairs on extreme sides; venter shining, with sparse white pubescence, fringed on apical margin of segments 2 and 3, that on apical segments black; second segment sparsely punctured, gibbous at base, extreme lateral margin with white pubescent line.

Chapada (September). Two specimens.

21. **M. molaca** ♂.—Length 16-18 mm.—Velvety black. Head transverse, narrower than thorax, with pro- and mesothorax and scutellum clothed with a dense, erect black pubescence; eyes rounded, convex, polished; clypeus with three teeth on apical middle; mandibles fringed with pale pubescence. Prothorax with rounded anterior angles; scutellum convex; an obtuse tubercle beneath tegulae; pleura and metathorax with pale ochraceous sericeous pubescence, the latter reticulated, short and transverse above and obliquely declivous behind, with rounded sides, the pubescence long and loose; tegulae round, punctured, the pubescence black. Wings much as in *alagoa*. Legs with pale glittering pubescence; calcaria white. Abdomen shaped as in *mystica*, with the first segment depressed, much more broadly dilated at apex, not constricted, sessile with base of second segment and conforming in outline therewith, clothed with pale ochraceous sericeous pubescence, more dense on apical margin; second segment sparsely punctured, polished at base, a smooth impunctured line on disk, the apex finely and closely punctured, on the base and sides the pubescence is pale and on remainder of the abdomen above it is black and velvety; venter with pale pubescence, except on the two apical segments, where it is black; second segment polished, with large and small sparse punctures, the basal middle pinched into a prominent carina or keel.

Rio de Janeiro (November). Two specimens.

22. **M. coimbra** ♂.—Length 7.5 mm.—Small, black. Head transverse, as wide as thorax, thickly clothed with erect pale glittering pubescence, and when viewed in front the arrangement of the pubescence around the ocelli give somewhat the appearance of a dog's face; the eyes rather large, convex and shining. Thorax closely punctured, the pubescence black, pale and erect on prothorax and apex of scutellum; anterior angles of prothorax rounded; pleura beneath tegulae with a patch of dense white pubescence; scutellum flattened; metathorax above clothed with a short appressed silvery-white pubescence, a broad silvery-white band at base above. Wings fusco-hyaline, clear at base; marginal cell broad, sub lanceolate, truncate at apex, not extending beyond tip of third submarginal, which is subtriangular and somewhat indistinctly defined; second submarginal pointed at base, the first and second transverso-cubital nervures widely separated on marginal. Legs pale fuscous, with pale pubescence; calcaria white. Abdomen with basal segment very broad at apex, which is sessile with base of second segment and conforming in outline therewith, clothed with fine pale hair, the apical margin, and also of segments 2-4, densely fringed with silvery-white pubescence; second segment shining, finely punctured, the pubescence pale and dense on apical margin of the segments; second segment sparsely punctured, gibbous at base, apical segment fuscous.

Corumbá (March). One specimen.

23. **M. inga** ♂.—Length 7-7.5 mm.—Small, black, clothed with pale glittering pubescence, more dense on head, prothorax, pleura, scutellum, base of metathorax and apical margin of abdominal segments 1-4. Eyes large, round, convex; mandibles pale fuscous; mesothorax with black pubescence; metathorax sparsely pubescent, reticulated, rounded above and laterally; the scutellum depressed. Wings subhyaline, fuscous on apical third; marginal cell sub lanceolate, broadly

rounded at apex; second submarginal little more than half the length of the marginal, pointed at base, receiving the recurrent nervure in the middle; third submarginal indistinctly defined, subtriangular, narrowed nearly to a point beneath. Abdomen shining, the pubescence pale; first segment broadly dilated at apex and sessile with base of second segment, conforming in outline therewith, apical margin fringed with pale sericeous pubescence; second segment polished, sparsely punctured, sericeous with pale pubescence; apical margin of segments 2-4 fringed with pale sericeous pubescence, that on apical segments black or fuscous; venter shining, the pubescence pale; second segment deeply and rather closely punctured, the base not gibbous; apical margin of segments 2-4 fringed with pale pubescence.

Chapada (February). Two specimens.

24. **M. carmo** ♂.—Length 12 mm.—Robust, black; head and thorax closely and finely punctured; head above, pro- and mesothorax and scutellum with short black pubescence; clypeus, mandibles and cheeks silvery tomentose. Head large, subquadrate, slightly broader than thorax, extended behind the eyes fully their diameter, with rounded posterior angles; clypeus nasutiform, obtuse, deeply notched in middle; mandibles broad, robust, produced and carinate at base beneath; eyes rather small, round, convex, polished; scutellum convex, punctured, with a small smooth spot on disk; pleura silvery sericeous tomentose; anterior angles of prothorax obtusely rounded; metathorax short, broad and transverse above, abruptly declivous behind, the upper surface densely silvery-white tomentose; tegulae small, round, polished, nigro-fuscous. Wings fuscous, marginal cell broad, sublanceolate, the apex broadly truncate; first and second submarginal cells about equal in length, the latter pointed at base; third submarginal incomplete. Legs with pale pubescence; calcaria white. Abdomen shining, feebly punctured; first segment very short and broad above, like a narrow band or collar, densely silvery-white tomentose, sessile with base of second segment, but not conforming in outline therewith, anterior face flat and abruptly declivous; second segment polished and impunctured, very feebly punctured at apex; sides of segments 2-5 with pale sericeous pubescence, apical margin of segments 2-4 and apex with black pubescence; venter shining, the pubescence pale, silvery tomentose on apex of second segment; apical margin of segments 2-4 fimbriate with white pubescence; base of second segment gibbous and polished.

Santarem. One specimen. Easily recognized by the robust, subparallel form, the very short, broad, transverse basal segment of the abdomen, which is nearly as broad as base of second segment, which latter is smooth and polished above.

The following nineteen species have the abdomen petiolate or subpetiolate, the first segment long, more or less nodose and constricted at apex; head not wider than the thorax; eyes round or short ovate, prominently convex; scutellum generally convex, with a more or less prominent tooth on each side at base, often hidden by the pu-

bescence; the metathorax reticulated, depressed, the lateral margin more or less angular and sharp, unarmed; pleura generally with a tubercle beneath tegulæ, the latter small and rounded; the second ventral segment with or without a discal fovea.

Second ventral segment foveate.

Second abdominal segment black.

Calcaria black Species 25.

Calcaria pale.

Pubescence of head and thorax mostly black Species 26-30.

Pubescence of head and thorax mostly pale Species 31-33.

Second abdominal segment ferruginous Species 34.

Second ventral segment not foveate.

Second segment above with two large yellow spots; calcaria black.... Species 35.

Second segment without yellow spots; calcaria pale.

Pubescence of head and thorax mostly black Species 36-40.

Pubescence of head and thorax mostly pale Species 41-43.

25. **M. cuiba** ♂.—Length 12.5 mm.—Black, opaque, the pubescence black; a band at apex of first abdominal segment, and another behind second segment covering apical margin of second and all of the third, pale ochraceous pubescent; metathorax coarsely reticulated, the pubescence black; scutellum convex, with long black pubescence, lateral teeth very short; a small obtuse tubercle beneath tegulæ. Wings violaceous fuscous; marginal cell short, not longer than second submarginal, truncate at apex; first and second transverso-cubital nervures approximate on marginal; second submarginal receiving recurrent nervure between middle and base; third submarginal more or less incomplete, very much narrowed below. Legs black, with black pubescence; calcaria also black. Abdomen with basal segment narrow, nodose and broadly subconstricted at apex; second segment minutely alutaceous; beneath shining, the first segment carinate and toothed near apex; second segment deeply and sparsely punctured, with an elongate black pubescent fovea on disk; apical margin of segments 2 and 3 more or less fringed with pale pubescence, sometimes only laterally.

Chapada (April). Two specimens. A very distinct species, the pubescence being entirely black, excepting the two ochraceous bands on abdomen, one on the first, the other behind the second segment.

26. **M. orbana** ♂.—Length 12.5 mm.—Black, the pubescence black, having a reddish appearance in certain lights. Clypeus with a few pale hairs; eyes round, convex, polished. Metathorax reticulated, clothed with long pale hair, reddish at base; no tubercle beneath tegulæ; scutellum flattened, lateral teeth very short. Wings fuscous; marginal cell sub lanceolate, truncate at tip, longer than second submarginal which is elongate, narrowed about one-third towards marginal and receiving the recurrent nervure before the middle; third submarginal cell incomplete. Legs with pale pubescence, reddish on tibiæ and barsi; calcaria white. Abdomen subpetiolate, first segment nodose and densely pale ochraceous at apex, the scattered pubescence long and pale; second segment

minutely alutaceous, shining, basal margin, broader at sides, densely pale ochraceous pubescent, as well as the third, sides of fourth and narrow apical margin of second segments; venter with scattered pale pubescence, black on three apical segments; apical margin of segments 2-4 fimbriate with pale pubescence; first segment carinate, with a strong subapical tooth; second segment shining, deeply rather sparsely punctured, the discal fovea placed behind the middle, small and white pubescent.

Chapada (April). One specimen. This species somewhat resembles *cuiaba*, which has black calcaria and no pale hair at base of second segment above, and the pale ochraceous pubescent band behind that segment is twice as broad as in this species.

27. **M. vidua** Klug (Nova Acta Cæs. Nat. Cur., x, p. 313, pl. xxii, fig. 11.—♂.—Length 17-20 mm.—Large, deep velvety black, opaque, the pubescence black, a few pale hairs on clypeus; eyes rounded, very convex. Scutellum convex, carinate on disk, lateral teeth prominent and truncate at tip; a large prominent obtuse tooth beneath tegulæ; metathorax broad, flattened posteriorly, coarsely reticulated, lateral margin prominent and subcarinate towards base, the upper surface with long pale silky hair and a patch of dense white pubescence on each side, sometimes confluent on disk, flanks abruptly declivous. Wings fuscous, paler at base, and with a pale hooked streak through second submarginal cell; marginal cell shorter than second and third submarginal cells combined, broadly rounded at tip; third submarginal cell extending beyond marginal, and nearly as broad beneath as above; first and second transverso-cubital nervures approximate on marginal. Legs with black pubescence, dense and white on inner side of tibiæ, long, sparse and pale on femora; calcaria white. Abdomen with basal segment coarsely punctured, subnodose, broadly constricted at apex the pubescence long and pale, with a broad dense appressed white pubescent band at apex; second segment densely finely punctured, subopaque, a patch of white pubescence on basal corners, sometimes indistinct; the extreme lateral margin finely fimbriate with white pubescence, ending in a spot at extreme apex; a similar spot on apex of third segment and sometimes on fourth; beneath shining, with black pubescence, the basal segment carinate, with a prominent compressed spine before apex; second segment deeply and sparsely punctured, with an elongate pubescent fovea on disk.

Santarem. Two specimens.

28. **M. lorena** ♂.—Length 14 mm.—Black, subopaque, the pubescence black, that on clypeus and cheeks sparse and pale. Eyes subovate, convex, polished. Scutellum convex, with a short longitudinal carina on basal middle, the lateral teeth short and truncate at apex; an acute tubercle beneath tegulæ; metathorax reticulated, the pubescence long, sparse and pale. Wings fuscous; marginal cell short, not longer than second submarginal, truncate at tip, the latter receiving the recurrent nervure between middle and base; third submarginal complete, very much narrowed beneath, triangular. Legs with black pubescence, pale sericeous on inner side of tibiæ and sparse on femora; calcaria white. Abdomen with basal segment subnodose and subconstricted at apex, the pubescence long and white, shorter and more dense on apical margin; second segment densely

and feebly punctured, shining, a little pale pubescence on basal and apical corners of segments 2 and 3; beneath shining, the first segment subdentate near apex, the second deeply and sparsely punctured, with a broad ovate, black pubescent fovea on disk, the pubescence black, slightly mixed with pale.

Chapada (February). Two specimens.

29. **M. caxara** ♂.—Length 15 mm.—Black, opaque, the pubescence black, mixed with pale on front and clypeus. Eyes round, convex. Scutellum prominent, with a smooth, shining tubercle on disk, the lateral teeth rather short and compressed; an obtuse tubercle beneath tegulæ; metathorax reticulated, upper surface flattened, sides subangulate when viewed from beneath, the pubescence long and pale, a large silvery tomentose patch on each side of the disk; tegulæ polished. Wings fuscous, paler at base, the venation much as in *vidua*, except that the third submarginal cell is much more narrowed beneath. Legs with pale glittering pubescence, dense on tibiæ and tarsi; calcaria white. Abdomen with first segment nodose and constricted at apex, the pubescence long and pale, and when viewed from the front with two small silvery tomentose spots on apical margin; second segment feebly punctured, rather shining, with a few pale hairs on basal corners and also on apical corners of segments 2-4; beneath shining, basal segment with a short acute tooth near apex; second segment shining, deeply and sparsely punctured, the pubescence short, sparse and pale, a large elongate black pubescent fovea a little before the middle, apical margin of segments 2-4 densely fimbriate with white hair.

Chapada (March). One specimen. Larger than *lorena* which it resembles, but easily separated by the pubescence of the tibiæ and tarsi being entirely pale.

30. **M. caneta** ♂.—Length 17 mm.—Rather large, black, the pubescence black. Eyes round and convex. Scutellum prominent, with a shining discal ridge, lateral teeth short; metathorax coarsely reticulated, pubescence long and pale, a patch of dense white pubescence on each side above; a prominent obtuse tubercle beneath tegulæ. Wings fuscous, paler in the cells and with the base conspicuously hyaline; venation much as in *vidua*, except that the third submarginal cell is smaller and more narrowed beneath. Legs with pale glittering pubescence; calcaria white. Abdomen with the basal segment elongate, nodose and constricted at apex, the pubescence long, pale and silky, on each side of the segment an elongate spot of dense, recumbent silvery-white pubescence, continued in a stripe on basal half of second segment, the latter shining, finely alutaceous; a patch of dense silvery white pubescence on sides of third segment, covering also the narrow lateral margin of the second; beneath polished, first segment carinate and briefly dentate at either end of the carina; second segment sparsely punctured with an ovate pubescent fovea on middle; apical margin of segments 2 and 3 fimbriate with white pubescence.

Chapada (October). Two specimens. A very distinct species, easily recognized by the stripe of white pubescence on each side of second abdominal segment at base above.

31. **M. almada** ♂.—Length 13 mm.—Black; head, prothorax and pleura more or less, thickly clothed with whitish pubescence, slightly mixed with black. Eyes round and very convex; base of metathorax broadly, sometimes interrupted into two spots, apex of basal segment of abdomen and basal corners of second segment densely silvery tomentose, and clothed with long pale silky hair; the apical margin of second segment, the third and fourth entirely and sides of remaining segments, clothed with longer white pubescence; mesothorax, scutellum and balance of second segment with short black pubescence, longer on apical segments; scutellum with central shining ridge, the lateral teeth short and compressed; metathorax reticulated, rounded above, declivous behind; a prominent obtuse tubercle beneath tegulæ. Wings hyaline, apical margin broadly fuscous; marginal cell short, not longer than second submarginal, truncate at tip; first submarginal about twice the length of the second, the latter receiving the recurrent nervure before the middle, the first and second transverso-cubital nervures approximate on marginal; third submarginal either incomplete or the outer nervure indistinct, triangular, narrowed to point beneath. Legs with pale pubescence, very sparse on femora; calcaria white. Abdomen with first segment subnodose and subconstricted at apex; second segment densely and finely punctured, subopaque; beneath with sparse pale pubescence, more dense on apical margin of segments 2 and 3; first segment with a strong subapical tooth; second segment deeply and sparsely punctured, with a long, narrow, discal pubescent fovea.

Chapada; Santarem.

32. **M. picada** ♂.—Length 11.5 mm.—Black; head entirely, prothorax, most of pleura, metathorax above, apical half of first segment of abdomen, nearly the basal half of second, and third and fourth entirely, clothed with dense, appressed silvery pubescence, interspersed with longer pale hair. Eyes round, convex. Mesothorax, scutellum, balance of second abdominal segment above and apical segment, clothed with black pubescence; scutellum coarsely reticulated, depressed, lateral teeth prominent, obtuse; pleura without tubercle beneath tegulæ. Wings subhyaline, broadly dusky at apex; marginal cell truncate at apex, nearly as long as second and third submarginal cells combined; outer nervure of third submarginal indistinct, the cell narrowed one half beneath; second submarginal elongate, pointed at base and receiving the recurrent nervure before the middle, the first and second transverso-cubital nervures widely separated on marginal. Legs with whitish pubescence, sparse and longer on femora; calcaria white. Abdomen with first segment elongate, nodose and constricted at apex; second segment shining, feebly punctured; beneath, the second segment is strongly and sparsely punctured, shining, with a narrow elongate discal fovea covered with white pubescence; apical margin of segments 2-4 fimbriate with pale pubescence.

Santarem. One specimen. Closely resembles *almada*, but differs by the white pubescence on head, pro and metathorax being more dense; the pleura beneath tegulæ has no prominent tubercle; the wings are darker, with differently shaped cells; the first abdominal segment more distinctly constricted at apex, the second more shining and broadly silvery tomentose at base; the pubescence on the fifth and following segments entirely black, etc.

33. **M. barra** ♂.—Length 8 mm.—Small, black; head and thorax strongly punctured, clothed with dense white appressed and subappressed pubescence, interspersed with longer erect hair; on mesothorax, scutellum, apex and flanks of metathorax the pubescence is black. Eyes rounded, convex, shining. Scutellum depressed, the lateral teeth short; no tubercle beneath tegulae; metathorax reticulated, flanks smooth, impunctured, polished. Wings hyaline or subhyaline, pale fuscous on apical third; marginal cell broadly truncate at tip, not quite as long as first and second submarginal cells combined; second submarginal subquadrate, scarcely longer than high, not pointed at base, receiving the recurrent nervure between middle and base; third submarginal incomplete or entirely wanting. Legs with white or pale glittering pubescence, sparse on femora; calcaria white. Abdomen slender; first segment elongate, subnodose and subconstricted at apex, with long pale silky hair, the apex with a broad band of dense appressed white pubescence, indented with black on anterior middle; second segment very finely punctured, shining, the pubescence short and black, a band of dense white pubescence at base dilated laterally, and a narrow band of same on segments 3 and 4; apex with black pubescence; beneath shining, the pubescence sparse and pale; second segment deeply and sparsely punctured, with a pubescent fovea behind the middle; apical margin of second and following segments fimbriate with pale pubescence.

Chapada (September). Two specimens.

34. **M. zapara** ♂.—Length 9 mm.—Small, black; head, prothorax, pleura, postscutellum and basal half of metathorax clothed with dense silvery-ochraceous pubescence. Eyes rounded, convex, prominent. Mesothorax coarsely punctured, the pubescence black; scutellum depressed, the pubescence long erect and pale, lateral teeth short; metathorax reticulated, flanks smooth and polished; pleura without tubercle beneath tegulae, which latter are polished black. Wings subhyaline, apical third pale fuscous, iridescent; marginal cell about as long as first submarginal, truncate at tip; second submarginal longer than high, pointed at base, narrowed one-third towards marginal, receiving the recurrent nervure before the middle; third submarginal triangular, not well defined, the outer nervure very faint. Legs black, the pubescence pale; calcaria white. Abdomen with first segment strongly punctured, the pubescence long and pale, apex broad, transversely subnodose, the apical margin reddish-brown; segments 2-4 ferruginous, shining; second segment finely punctured, the pubescence short and black, with longer pale hair at base and sides, a black stripe at extreme lateral margin; segments 3 and 4 with pale pubescence; remaining segments brown or black with black pubescence; venter polished, segments 2-4 ferruginous, the pubescence sparse and pale and apical margin fimbriate with pale hair; second segment strongly and sparsely punctured, with a white pubescent fovea behind the middle; apical segments black, the pubescence black.

Chapada (September). One specimen. This may prove to be either *oculifera* Smith, or *proxima* Smith.

35. **M. colorata** Gerst. (Archiv. f. Naturg., xl, p 315).—♂.—Length 10-16 mm.—Black; head, prothorax, pleura, sides of metathorax and apex of scutellum, densely clothed with pale ochraceous pubescence. Eyes rounded, convex, promi-

nent. Metathorax finely and closely reticulated, rounded above, abruptly sloping behind, the sides angulate near base, the pubescence long, pale, silky; pubescence on mesothorax short and black. Scutellum subconvex, lateral teeth short and compressed. Wings fuscous or pale fuscous, darker on apical third; marginal cell short, scarcely longer than second submarginal, very broadly truncate at tip; third submarginal cell indistinctly defined or incomplete, extending beyond tip of marginal; second submarginal elongate, pointed at base, receiving the recurrent nervure before the middle, the first and second transverso-cubital nervures widely separated on marginal. Legs with pale ochraceous pubescence, dense on tibiæ and tarsi; calcaria black. Abdomen with apex of first segment transversely nodose, deeply constricted on apical margin, thickly clothed with long pale pubescence; second segment minutely alutaceous, rather shining, the pubescence short and black, except on the two large rounded pale yellow spots, where it is concolorous; extreme basal corners of this segment with a few white hairs; a band of dense pale ochraceous pubescence, interrupted on middle, on segments 4 and 5, otherwise the pubescence is black; venter polished, sparsely not strongly punctured, the first segment subdentate near apex, second segment without discal fovea, segments 2-5 fringed at apex with pale pubescence, that on the remaining segments black.

Chapada. This fine species is easily recognized by the two large pale yellow spots on second segment of abdomen above.

36. **M. tapera** ♂.—Length 16 mm.—Large, black, with black pubescence. Eyes ovate, convex, polished. Scutellum convex, lateral teeth obtuse; pleura with an obtuse tubercle beneath tegulæ; metathorax rather coarsely reticulated, flattened and declivous posteriorly, clothed with long pale silky pubescence. Wings fuscous, extreme base and a curved line through the first two submarginal cells, ending in a short oblique line or spot in second discoidal cell, subhyaline; third submarginal cell complete, subtriangular, narrowed, one half beneath; marginal cell not longer than second submarginal, the truncate apex not extending beyond third submarginal; second submarginal elongate, pointed at base, receiving the recurrent nervure a little before the middle, the first and second transverso-cubital nervures closely approximate on marginal. Legs with black pubescence, pale sericeous on inner side of tibiæ and tarsi; calcaria white. Abdomen with basal segment elongate, nodose and constricted at apex, confluent punctured, and clothed with long, pale silky pubescence, more dense and white on each side at apex; remaining segments above finely alutaceous, the pubescence black, except a small patch at basal corners of second and a small spot at extreme apical corners of second and third segments which are white or pale ochraceous; venter shining, second segment polished, sparsely punctured, without discal fovea, the extreme basal middle pinched, the pubescence black, except on first, base of second, and fringe on apex of segments 2 and 3, where it is whitish.

Chapada Campo (September). A specimen from Chapada (October) differs in having the pubescence on sides of metathorax, first abdominal segment at apex, and the second at base more dense and white, that on the first at apex and base of second being appressed and sericeous.

37. **M. serra** ♂.—Length 11 mm.—Small, black, the pubescence mostly black, white on clypeus; head and thorax, except metathorax, closely, confluent punctured. Eyes ovate, convex, prominent. Scutellum convex, the lateral teeth prominent, obtuse; the metathorax rather coarsely reticulated, the reticulations larger at base, the pubescence long, scattered and pale; a sharp spine beneath tegulæ. Wings uniformly fuscous, except a pale streak in second submarginal cell and a spot beneath its apex; marginal cell as long as second and third submarginal cells combined, broadly rounded at tip, and not extending beyond apex of third submarginal, which is complete and much narrowed beneath; second submarginal elongate, receiving the recurrent nervure before the middle, the first and second transverso-cubital nervures widely separated on marginal. Legs nigro-piceous, the pubescence brown or black; calcaria testaceous. Abdomen slender, the pubescence black, except on first segment and a few scattered hairs at base of second where it is whitish; first segment elongate, nodose and constricted at apex, punctured; second and following segments very minutely punctured, somewhat shining; venter polished, second segment sparsely and finely punctured, the pubescence black, some scattered pale hairs on first and base of second segments.

Chapada. One specimen. Resembles *tupera* somewhat, but smaller, the tubercle beneath tegulæ acute, the abdomen less strongly punctured, and the neururation of anterior wings different.

38. **M. viana** ♂.—Length 10-15 mm.—Black, the pubescence black; head and thorax, except metathorax, closely, confluent punctured. Head small, transverse; eyes ovate, very convex. Scutellum convex, with a central shining tubercle, lateral teeth compressed, not prominent; metathorax coarsely reticulated, depressed and declivous posteriorly, clothed with long pale pubescence; an obtuse tubercle beneath tegulæ. A large spot on vertex between the eyes, a broad band on apex of first abdominal segment, basal corners of second segment, and a band, interrupted on disk above, occupying the third, and narrow apical margin of second segment, clothed with dense, more or less appressed, and interspersed with long, whitish pubescence; some pale hair also on clypeus. Wings fuscous, with more or less of base and a large spot about middle of anterior pair, subhyaline; three complete submarginal cells; marginal truncate at tip, scarcely longer than second submarginal and not reaching to apex of third submarginal, which latter is scarcely narrowed beneath; second submarginal cell receiving the recurrent nervure before the middle, the first and second transverso-cubital nervures approximate on marginal. Legs black, with black pubescence, that on coxæ and femora beneath sparse, long and pale; calcaria testaceous. Abdomen with first segment transversely nodose and constricted at apex, the second and following segments closely and finely punctured; somewhat shining; the venter polished, deeply and sparsely punctured; second segment without a discal fovea, somewhat pinched at extreme base.

Chapada. One specimen, probably only a variety, has no patch of white pubescence on vertex, and the calcaria are white.

39. **M. sabara** ♂.—Length 10-12 mm.—Black; head and thorax closely and rather coarsely punctured, metathorax reticulated; the head above, pro- and mesothorax, and abdomen above behind base of second segment, clothed with short black pubescence, longer on sides and apex; face, clypeus, cheeks and thorax beneath with pale glittering pubescence. Eyes rounded, convex, prominent. Scutellum depressed, the pubescence long and erect, lateral teeth prominent, suberect, polished; pleura without tubercle beneath tegulæ; metathorax with a patch of dense whitish tomentose on disk, sometimes separated into two spots. Wings pale fuscous, extreme base and a streak beneath stigma pale; marginal cell scarcely as long as second and third submarginal cells combined, rounded at tip; second submarginal a little longer than high, narrowed one half above, receiving the recurrent nervure before the middle; third submarginal subtriangular, not extending beyond tip of marginal. Legs with pale glittering pubescence, more dense on tibiæ and tarsi; calcaria white. Abdomen shining behind first segment, which is nodose at apex and subconstricted, thinly clothed with long white hair, the apical half densely silvery sericeous tomentose; second and following segments feebly punctured, the pubescence black, base of second segment with a narrow band of dense silvery sericeous pile, broadened laterally; sides of segments 3 and 4 with a patch of long white pubescence; venter shining, clothed with pale glittering pubescence, more dense on apical margin of segments 2-4; apex black; second segment feebly and sparsely punctured, without discal fovea.

Chapada; Santarem.

40. **M. taboca** ♂.—Length 10-12 mm.—Closely allied to *sabara* and may be only a variety, but differs by the pubescence of the legs, except tarsi, being black, and the third abdominal segment above has a silvery sericeous pubescent band, generally more or less broadly interrupted medially.

Chapada.

41. **M. maraca** ♂.—Length 12-14 mm.—Slender, black, shining. Head rather finely and closely punctured, clothed with glittering griseous pubescence, more dense and silvery on clypeus and cheeks; eyes large, ovate, prominently convex. Thorax coarsely punctured, metathorax reticulated; mesothorax with short black pubescence, on prothorax, pleura and metathorax it is silvery sericeous, dense on metathorax above, which latter is also clothed with long pale silky hair; a prominent subacute spine beneath tegulæ; scutellum reticulated, convex, lateral teeth long, prominent, the somewhat hooked tips directed inward; metathorax broadly rounded posteriorly and prominent laterally. Wings hyaline, apex broadly and tip of basal cell subfuscous; marginal cell broadly rounded at apex, as long as second and third submarginal cells combined; second submarginal elongate, narrowed one-fourth on marginal, receiving the recurrent nervure between middle and base; third submarginal small, triangular, reaching almost to apex of marginal. Legs rather slender, the pubescence silvery sericeous, most dense on tibiæ and tarsi; calcaria white. Abdomen slender, the first segment elongate, narrow, nodose at apex, clothed with dense, appressed, silvery sericeous pubescence, interspersed with long white silky hair; second segment feebly punctured, polished, basal half and sides covered with dense appressed silvery sericeous pubescence, as are also segments 3 and 4, and base of 5,

with long pale silky hair on sides; on apical half of second and on apical segments the pubescence is black; beneath, the second segment is strongly and sparsely punctured, shining, and without discal fovea; segments 2-4 fringed at apex with pale glittering pubescence.

Santarem.

42. **M. acara** ♂.—Length 8 mm.—Very much like *barra*, but there is no discal fovea on second ventral segment; the marginal cell is longer, and the second submarginal is very much longer than high; the third submarginal is complete, with the outer nervure faint; legs piceous, with pale pubescence; narrow apical margin of second abdominal segment, segments 3 and 4 entirely and most of 5, clothed with pale ochraceous pubescence; otherwise like *barra*.

Chapada (October). Two specimens.

43. **M. pomba** ♂.—Length 9 mm.—Small, slender, black. Head with pale glittering pubescence, mixed with black on the vertex, protuberant behind the ocelli, which latter are of the usual size; the eyes round, convex, prominent. Thorax strongly, closely punctured, with short black pubescence above, mixed with pale on prothorax; the pleura and metathorax dense silvery tomentose; anterior margin of prothorax carinate, anterior angles acute; scutellum convex, lateral teeth short; metathorax reticulated, the pubescence long, pale and silky; no tubercle beneath tegulae. Wings fusco-hyaline, with a brassy reflection; marginal cell long, lanceolate, pointed at apex; second submarginal short, subquadrate, pointed at base, only slightly narrowed towards marginal, receiving the recurrent nervure at about the middle, second transverso-cubital nervure straight; third submarginal cell incomplete. Legs slender, the pubescence and calcaria pale. Abdomen long, slender, petiolate, basal segment narrow, as long as second segment, nodose and constricted at apex, sparsely clothed with pale pubescence, as is also base and sides of second segment, which latter is smooth and polished, impunctate except at tip, clothed with short black pubescence on disk and apex; remaining segments with black pubescence more or less mixed with pale, especially on sides; venter shining, the pubescence sparse and pale; second segment sparsely punctured, without discal fovea.

Santarem. One specimen. This seems allied to *tenuis* Smith.

The following species belong to the subgenus *Photopsis*, and are the only two found in the collection. They are not included in the table given on page 56, etc.

M. gracilescens Smith (Descr. New Spec. Hym. Brit. Mus. 1879, p. 222). — ♂.—Length 12 mm.—Head black, impunctate, shining, with long sparse pale hair; eyes and ocelli large, prominent, convex; palpi pale testaceous. Thorax pale honey-yellow, finely punctured, the pubescence long and pale; metathorax reticulated, the basal middle with three long longitudinal carinae. Wings subhyaline, nervures testaceous, costa and stigma brown; marginal cell long, lanceolate, pointed at tip; first submarginal narrow, oblique, the second subquadrate,

pointed at base, truncate at apex, third submarginal obsolete. Legs blackish, the pubescence pale; coxæ and trochanters honey-yellow; calcaria long, slender, pale. Abdomen petiolate, shining black, thickly clothed, except on first and basal half of second segment, with long dense appressed whitish pubescence, and when viewed from the front the abdomen is densely silvery white pubescent behind second segment; first segment ferruginous above and beneath, blackish on apical margin above; second segment feebly punctured, polished, basal middle sparsely pubescent, sides and apex thickly so; apex of second and following ventral segments much less densely pubescent than those above; apical segment flat, subquadrate, sparsely punctured, margined laterally, the two apical spines honey-yellow.

Chapada (October). One specimen. This agrees tolerably well with Smith's description, except that the coxæ are rather finely punctured and not reticulated.

M. valenca ♂.—Length 14 mm.—Deep black, opaque; head, pro- and mesothorax and pleura closely punctured, with erect or suberect black pubescence, except on mouth parts and pleura where it is pale, and longer on head and prothorax; metathorax rather coarsely reticulated, and with several large elongate cells on basal middle, the pubescence long and pale; eyes and ocelli as in preceding species. Wings fusco-hyaline, the base and a blotch at apex of second submarginal cell hyaline; neuration much as in *gracilescens*, except that the second submarginal cell is longer, and the subtriangular third is complete, except lower portion of outer nervure which is indistinct. Legs brown black, thickly pale pubescent; coxæ pale sericeous tomentose; calcaria pale. Abdomen black, shining, finely punctured; first segment clothed with long erect pale hair; second segment thickly pale pubescent on sides and apex, almost nude on basal middle; when viewed from above the abdomen has a broad band of dense appressed whitish pubescence occupying apex of second segment, and 3 and 4 entirely, while the following segments are rather thickly black pubescent; beneath, the second segment is smooth, shining, very sparsely and feebly punctured; apex of segments 2 and 3 fimbriate with pale pubescence, behind these the pubescence is black; apical segment rounded, not margined laterally, the two apical spines honey-yellow.

Rio de Janerio (November). One specimen.

INDEX TO SPECIES.

MUTILLA Linné.

	PAGE		PAGE
abadia <i>Cress.</i> ♂	57, 64	coimbra <i>Cress.</i> ♂	57, 69
acara <i>Cress.</i> ♂	59, 79	colorata <i>Gerst.</i> ♂	58, 75
æmulata <i>Cress.</i> ♀	13, 50	compar <i>André</i> ♀	13, 46, 49
alagoa <i>Cress.</i> ♂	57, 68	cornigera <i>Cress.</i> ♀	6, 15
almada <i>Cress.</i> ♂	58, 74	credula <i>Cress.</i> ♀	6, 19
Andrei <i>Cress.</i> ♀	14, 55	crepera <i>Cress.</i> ♀	6, 19
anthracina <i>Gerst.</i> ♂	57, 68	crixa <i>Cress.</i> ♀	13, 46, 48
araxa <i>Cress.</i> ♀	10, 34	croata <i>Cress.</i> ♂	56, 63
argentata Klug ♂	63	crusa <i>Cress.</i> ♀	10, 33
argentula <i>Dalla Torre</i> ♂	56, 63	cuiiba <i>Cress.</i> ♂	58, 71
armata <i>Klug</i> ♀	9, 28	curiosa <i>Cress.</i> ♀	10, 35
atripes <i>Smith</i> ♀	12, 43	decussata <i>Cress.</i> ♀	6, 15
auroplaga <i>Cress.</i> ♀	9, 32	demissa <i>Cress.</i> ♀	12, 13, 43
auxiliaris <i>Cress.</i> ♀	14, 53, 54	denticulata <i>Smith</i> ♀	6, 14
barboza <i>Cress.</i> ♂	57, 67	diadema <i>Fabr.</i> ♀	49
barra <i>Cress.</i> ♂	58, 75	diophthalma <i>Klug</i> ♀	11, 41
beatula <i>Cress.</i> ♀	7, 23	dividua <i>Cress.</i> ♀	6, 18
bellica <i>Cress.</i> ♀	11, 40	dorsovittata <i>Cress.</i> ♀	12, 44
bellicosa <i>Cress.</i> ♀	12, 41	duplicata <i>Gerst.</i> ♀	13, 48, 49
bellifera <i>Cress.</i> ♀	12, 41	empyrea <i>Gerst.</i> ♀ (mention)	32
bellula <i>Cress.</i> ♀	11, 39	escada <i>Cress.</i> ♂	56, 60
benevola <i>Cress.</i> ♀	7, 23	estrella <i>Cress.</i> ♀	13, 47, 49
bifurca <i>Klug</i> ♀	9, 31	exclamationis <i>Cress.</i> ♀	6, 17
billineipunctata <i>Spin.</i> ♀ (mention)	18	felix <i>Cress</i> ♀	10, 33
bilunata <i>Burm.</i> ♀	7, 20	fenestrata <i>Klug</i> ♀ (mention)	37
biteniata <i>Spin.</i> ♀ (mention)	23	frigidula <i>Cress.</i> ♀	11, 40
bivittata <i>Gerst.</i> ♀	13, 47, 49	Gazagnairei <i>André</i> ♀	9, 31
bombycina <i>Cress.</i> ♀	10, 36	<i>Gerstaeckeri</i> (graphica ♀)	52
borba <i>Cress.</i> ♀	14, 53, 54	gigantea <i>Perty</i> ♀	9, 30
bucephala <i>Perty</i> ♀	9, 29	Gounellei <i>André</i> ♀ (mention)	19
bucephalus <i>Smith</i> ♀	36	gracilescens <i>Smith</i> ♂	79
calvaria <i>Cress.</i> ♀	10, 32	gracilis <i>Smith</i> ♂	56, 62
caneta <i>Cress.</i> ♂	58, 73	graphica <i>Gerst.</i> ♀	14, 51, 53
carinigena <i>Cress.</i> ♀	11, 36	harpyia <i>Gerst.</i> ♀	8, 24
carmo <i>Cress.</i> ♂	57, 70	inaurata <i>Smith</i> ♂ (mention)	65
catanga <i>Cress.</i> ♂	57, 64	indica <i>Linn.</i> ♀	13, 49
caxara <i>Cress.</i> ♂	58, 73	inermis <i>Klug</i> ♀	12, 44
centromaculata <i>Cress.</i> ♀	8, 27	infausta <i>Cress.</i> ♀	11, 38
centrovittata <i>Cress.</i> ♀	9, 31	inga <i>Cress.</i> ♂	57, 69
cephalotes <i>Swed.</i> ♀	8, 25	integella <i>Cress.</i> ♀	7, 23
cerbera <i>Klug</i> ♀	9, 30	invitata <i>Cress.</i> ♀	7, 22
chapada <i>Cress.</i> ♀	13, 14, 45, 48	ipanema <i>Cress.</i> ♀	14, 55

	PAGE		PAGE
<i>iracunda</i> Cress. ♀	6, 16	<i>pomba</i> Cress. ♂	59, 79
<i>Januarii Dalla Torre</i> ♀	7, 22	<i>projectifrons</i> Cress. ♀	10, 33
<i>jatoba</i> Cress. ♂	56, 63	<i>proxima</i> Smith ♂ (mention)	75
<i>juvenalis</i> Gerst. ♀	14, 53, 54	<i>4-notata</i> Klug ♀	12, 43
<i>laguna</i> Cress. ♂	56, 62	<i>4-pustulata</i> Klug ♀ (mention)	43
<i>larvata</i> Klug ♀	11, 39	<i>quadrum</i> Klug ♀	13, 45
<i>latevittata</i> Cress. ♀	12, 13, 42	<i>rectilineata</i> André ♀	14, 55
<i>lineola</i> Fabr. ♀ (mention)	17, 18	<i>rufiventris</i> Klug ♂	56, 61
<i>lorena</i> Cress. ♂	58, 72	<i>sabara</i> Cress. ♂	59, 78
<i>lucidiventris</i> Gerst. ♂ (mention)	60	<i>sancta</i> Gerst. ♀ (mention)	52
<i>lusca</i> Klug ♀ (mention)	42	<i>seducta</i> Cress. ♀	6, 16
<i>macapa</i> Cress. ♂	56, 59	<i>serena</i> Gerst. ♀ (mention)	37
<i>manca</i> Cress. ♀	14, 52, 54	<i>serra</i> Cress. ♂	59, 77
<i>manga</i> Cress. ♂	56, 60	<i>simplex</i> Smith ♂ (mention)	65
<i>maraca</i> Cress. ♂	59, 78	<i>sincora</i> Cress. ♂	57, 65
<i>Mayri Kohl</i> ♀ (mention)	36	<i>Smithii</i> Cress. ♀	9, 27
<i>melanocephala</i> Perty ♀	20	<i>sodalis</i> Cress. ♀	14, 52, 54
<i>molaca</i> Cress. ♂	57, 69	<i>solemnis</i> Cress. ♀	12, 49
<i>moneta</i> Gerst. ♀ (mention)	27	<i>spectabilis</i> Gerst. ♀	13, 47, 49
<i>morada</i> Cress. ♂	56, 63	<i>specularis</i> Gerst. ♀	8, 25
<i>mundula</i> Cress. ♀	14, 54	<i>spiniceps</i> Cress. ♀	8, 26
<i>myops</i> Burm. ♀	11, 37	<i>spinosa</i> Swed. ♀	11, 40
<i>mystica</i> Gerst. ♂	57, 67	<i>squamata</i> Smith ♂ (mention)	65
<i>obliquata</i> Klug ♀ (mention)	39	<i>stygia</i> Smith ♀	11, 37
<i>ocellaris</i> Klug ♀	13, 48, 49	<i>taboca</i> Cress. ♂	59, 78
<i>oculifera</i> Smith ♂ (mention)	75	<i>tantula</i> Cress. ♀	7, 22
<i>onca</i> Cress. ♂	56, 64	<i>tapera</i> Cress. ♂	59, 76
<i>optata</i> Cress. ♀	14, 52, 54	<i>tenuis</i> Smith ♂ (mention)	79
<i>orbana</i> Cress. ♂	58, 71	<i>terminalis</i> Gerst. ♂ (mention)	60
<i>pacata</i> Cress. ♀	7, 21	<i>turnalis</i> Cress. ♀	10, 34
<i>pachynemis</i> Burm. ♀ (mention)	23	<i>unimarginata</i> Cress. ♀	14, 54
<i>parallela</i> Klug ♀ (mention)	53	<i>vagabunda</i> Smith ♀	13, 46, 49
<i>parata</i> Cress. ♀	7, 20	<i>valena</i> Cress. ♂	80
<i>paulula</i> Cress. ♀	7, 19	<i>verecunda</i> Cress. ♀	7, 24
<i>pectoralis</i> Smith ♀	22	<i>vera</i> Cress. ♀	8, 25
<i>pergrata</i> Cress. ♀	7, 21	<i>viana</i> Cress. ♂	59, 77
<i>perspicillaris</i> Klug ♀ (mention)	38	<i>vicosa</i> Cress. ♂	56, 65
<i>Pertyi Dalla Torre</i> ♀	11, 36	<i>victura</i> Cress. ♀	9, 29
<i>phalerata</i> Klug ♀	6, 17	<i>vidua</i> Klug ♂	58, 72
<i>picada</i> Cress. ♂	58, 74	<i>virginalis</i> Gerst. ♀ (mention)	45
<i>picta</i> André ♀ (mention)	32	<i>vivata</i> Cress. ♀	13, 51, 53
<i>pinha</i> Cress. ♂	57, 66	<i>zapara</i> Cress. ♂	57, 75
<i>plagifera</i> André ♀ (mention)	36		